

# **Malawi Country Operational Plan**

**COP 2019**

**Strategic Direction Summary**

**April 18, 2019**



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## 1.0 Goal Statement

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Malawi is approaching epidemic control. The 2018 UNAIDS Spectrum estimates demonstrate strong progress to the globally endorsed 90-90-90 goals, currently estimated at 90-84-90. PEPFAR Malawi's targeted strategy for investment will complement significant Global Fund resources to propel the National Program toward epidemic control by 2020.

**PEPFAR Malawi focuses on rapidly scaling critical interventions to reach the 336,000 individuals living with HIV who are not yet virally suppressed.** Epidemiological and programmatic data indicate that of those 336,000 people:

1. **32% are unaware of their HIV status:** This requires intensified case finding approaches utilizing the most efficient modalities for optimized testing. As demonstrated in PEPFAR Malawi's targeting strategy, this includes active index testing<sup>1</sup>, HIV oral self-testing, optimized provider initiated testing and counseling (PITC, including antenatal care or ANC) and, immediate linkage to anti-retroviral treatment (ART).
2. **41% are aware of their HIV status, but not on ART:** Evidence-based case management strategies will improve linkage to care to >95% and reduce 12-month ART loss to follow-up to ≤1%.<sup>2,3,4</sup> This involves standardized counseling for those newly diagnosed to ensure linkage and retention on ART and back to care counseling for those who initiated treatment, but struggle with adherence.
3. **27% are on ART but not virally suppressed:** Accelerating the transition to Dolutegravir-based regimens and the adoption of an annual viral load testing policy<sup>5</sup> both create an enabling environment to empower clients to achieve and maintain a suppressed viral load. Coupled with treatment literacy messaging through existing and emerging platforms, Malawi will not only provide better treatment to those in existing care, but will also create a demand through knowledge around the health benefits of viral suppression.

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<sup>1</sup> Throughout the SDS, "active index testing" and "voluntary assisted partner notification", or VAPN, are used interchangeably.

<sup>2</sup> MacKellar D, Maruyama H, Rwabiyago OE, et al. Implementing the package of CDC and WHO recommended linkage services: Methods, outcomes, and costs of the Bukoba Tanzania Combination Prevention Evaluation peer-delivered, linkage case management program, 2014-2017. *PLoS One* 2018; **13**(12): e0208919.

<sup>3</sup> Auld et al, CROI 2018. Effect of TB Screening and Retention Interventions on Early ART Mortality. Available at: <http://www.croiconference.org/sessions/effect-tb-screening-and-retention-interventions-early-art-mortality-botswana>

<sup>4</sup> MacKellar D, Williams D, Bhembé B, et al. Peer-Delivered Linkage Case Management and Same-Day ART Initiation for Men and Young Persons with HIV Infection - Eswatini, 2015-2017. *MMWR Morb Mortal Wkly Rep* 2018; **67**(23): 663-7.

<sup>5</sup> Commitment in place for 2019

Primary prevention for those at greatest risk of HIV exposure is also critical to creating an AIDS free generation in Malawi. Expanding to three additional districts for voluntary medical male circumcision (VMMC), including the utilization of kits purchased by the Global Fund, will extend programmatic reach and accelerate saturation<sup>6</sup>. This additional investment in VMMC was a specific request in civil society “People’s COP” (*Liu Lathu Mu* in Chichewa, meaning “Our Voice”). By targeting men ages 15-29, VMMC interrupts HIV transmission, in particular, to adolescent girls and young women (AGYW).

AGYW remain a key focus for PEPFAR programming this year. Utilizing the approximately 40 newly-installed pre-fabricated secondary schools<sup>7</sup> (which will be completed during COP19 implementation, with more coming online in the following years) will keep girls in school longer and reduce their lifetime risk of contracting HIV. This transformative initiative approved in COP17, includes a PEPFAR first tranche investment of \$20M, with up to \$90M planned. The accompanying Memorandum of Understanding (MOU) between the U.S. Government and the Malawian Ministry of Education commits the Ministry to waving secondary school tuition fees, ensuring more AGYW remain in school. The MOU also commits to providing youth-friendly health services (including the provision of Pre-exposure Prophylaxis [PrEP] for those most vulnerable) near schools; institutes a zero-tolerance policy for gender-based violence; and ensures support for community-based responses such as Go! Girls clubs - with evidence-based curriculum - and Mothers Groups - that work to keep girls in school and avoid early or unwanted marriages.

Utilizing the latest programmatic data, PEPFAR Malawi will expand key populations programming into two new districts with hot spots of high HIV transmission due to transportation routes and seasonal agricultural or other trading opportunities, as well as newly aligned (to ensure no overlap) Global Fund programming. The package of services includes HIV oral self-testing for residents of informal settlements, including sex workers and their clients, most of whom do not interface regularly with the health system.

To implement these interventions with fidelity and reach epidemic control, the PEPFAR team will implement a number of **critical enablers**:

- *Aligning human resources for health (HRH) with the latest programmatic focus:* The PEPFAR Malawi team continues to carry out a full assessment of its existing HRH to understand the focus of each cadre, associated remuneration, and geographic location. Pairing this assessment with the latest epidemic data, PEPFAR will distribute clinical HRH to focus on diagnostics and linkage to ART, back to care tracing and counseling, viral load testing, and use of results. For primary prevention, including OVC programming and DREAMS, PEPFAR will deploy HRH to case management where it is most needed, while graduating those at reduced risk.

- *Ensuring a near real-time HIV surveillance system in Malawi through recency testing as well as collection and use of age and sex-disaggregated data to reach and sustain epidemic control:* Building from the previous PEPFAR investments, the program is accelerating a fit-for-purpose electronic data system to enable site-level use of the data as well as a programmatic monitoring system (building from the existing Blantyre Surge strategy) that allows for strategic refinement through biweekly data analysis and identifying priority interventions with implementers. Recency testing details transmission hot spots for an immediate response.
- *Engaging traditional and faith-based leaders, along with civil society and other populations affected by or infected with HIV, in the development and sharing of key HIV prevention and treatment messaging.*
- *Ensuring an enabling policy environment that leverages the latest evidence and WHO recommended interventions to reach epidemic control.* The PEPFAR Malawi team will utilize near real-time data to ensure recently approved modalities (HIV Circular, sent March 21, 2019) are scaled up with fidelity. We will work in partnership with the Ministry of Health, multilateral partners, and civil society to ensure new policies are implemented at scale, and bottlenecks are addressed.

## 2.0 Epidemic, Response, and Program Context

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### 2.1 Summary statistics, disease burden and country profile

Malawi is a low-income country (GNI: 320 per capita<sup>8</sup>) with a population of more than 17.5 million people.<sup>9</sup> Although a small country, Malawi's HIV prevalence, at 6.3% overall and 10.6% among adults, is among the highest in the world.<sup>10</sup> Within Malawi, HIV prevalence varies widely by region, with prevalence among adults ranging from 4.9% in the Central-East to 17.7% in Blantyre City. In general, prevalence is highest in Southern Malawi and in the urban centers of Blantyre and Lilongwe (14.2% among adults aged 15-64 with urban residence). HIV prevalence in Malawi also differs significantly by age and sex. Due to transmission dynamics in which the vast majority of females are infected between the ages of 15-34 (HIV incidence: 0.38% among females 15-24, 0.83% among females 25-34), HIV prevalence is nearly twice as high among females 15-24 years old (3.4%), and

<sup>6</sup> Defined as 80% of male population circumcised with prioritization given to 15-29 year olds

<sup>7</sup> Peace Corps will support the startup of select new secondary schools with Response Volunteers who serve as Education Specialists. In this capacity, the Response Volunteers will assist the Head Teachers to develop professional standards of operations and conduct that support a safe and effective learning environment for students.

<sup>8</sup> World Bank. GNI per capita, Atlas method (current USDs). <https://data.worldbank.org/indicator/NY.GNP.PCAP.CD?locations=MW>. 2017. Accessed March 18, 2019.

<sup>9</sup> Government of Malawi National Statistical Office. 2018 Population and Housing Census: Preliminary Report. [http://www.nsomalawi.mw/images/stories/data\\_on\\_line/demography/census\\_2018/2018%20Population%20and%20Housing%20Census%20Preliminary%20Report.pdf](http://www.nsomalawi.mw/images/stories/data_on_line/demography/census_2018/2018%20Population%20and%20Housing%20Census%20Preliminary%20Report.pdf). December, 2018.

<sup>10</sup> Ministry of Health, Malawi. Malawi Population-Based HIV Impact Assessment (MPHIA) 2015-2016: Final Report. Lilongwe, Ministry of Health. October 2018.

nearly three times as high among females 25-29 years old (13.6%) than among males in the same age brackets (1.5% and 4.7%, respectively). Prevalence peaks among females 40-44 years old at 24.6% and among males 45-49 years old at 22.1%. (Detailed information is available in Table 2.1.1.) There are significant differences in the age and sex distributions of clients living with HIV in urban areas versus rural areas (see below). This is due to in-migration of youth, the youth bulge, and sub-optimal levels of viral suppression in urban areas resulting in higher incidence and prevalence affecting youth.

Nearly 1.1 million Malawians will be living with HIV in 2020; 56% of whom will be women, 38% men, and 6% children under age 15.<sup>11</sup> Malawi has made good progress toward reaching the 90-90-90 United Nations AIDS goals, and at the end of September 2018, an estimated 90% of all people living with HIV (PLHIV) knew their HIV status, 84% of PLHIV with known status were on ART, and 90% of PLHIV on ART were virally suppressed.<sup>12</sup> Despite progress, however, some critical disparities by geography and populations persist, and require action to reach epidemic control. In 2018, the majority of PLHIV and the greatest gaps to reaching 90% ART coverage were in urban Blantyre, Lilongwe, and Zomba.<sup>13</sup> Progress across the three 90s is consistently high for women, but ART coverage among men and adolescents is low. Among children, viral load suppression is extremely low, suggesting the need for urgent transition to Lopinavir and ritonavir (LPV-r)-based regimens and rapid scale-up of viral load monitoring in these populations.

Malawi's resource constrained health system continues to pose a threat to successful HIV/AIDS program implementation and the achievement of epidemic control. While PEPFAR, the Government of Malawi, and other partners have made progress to address key health system barriers, the systemic challenges persist. In COP17, PEPFAR engaged in a systems capacity gap analysis that identified seven key systems barriers through the triangulation of monitoring and evaluation reporting (MER) data, sustainability index dashboard (SID) indicators (2017), and site improvement through monitoring system (SIMS) assessment results. COP19 continues to address six of those identified. Understanding the impact of these will determine if additional investment is required in COP 20.

COP19 strategic above site/above service delivery activities (reflected in Table 6, Appendix C) will therefore address the following health system barriers:

1. Inadequate HRH to implement quality targeted HIV service delivery at the site and community-level;
2. Information systems too weak to efficiently collect accurate, real-time epidemiological and health data;
3. Sub-optimal implementation of lab mechanisms to effectively and efficiently utilize lab resources and inadequate laboratory infrastructure to meet viral load scale-up goals for COP18;

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<sup>11</sup> Spectrum 2019

<sup>12</sup> Spectrum 2019, Eaton SAE (February, 2019).

<sup>13</sup> Eaton SAE (February 2019).

4. Cumbersome national approval processes delay the implementation of innovative, evidence-based HIV interventions across the cascade of treatment and prevention;
5. Limited host-country capacity (including high rates of vacancy, limited market of qualified individuals, etc.) for evidence-based management of HIV programs; and,
6. Limited commodity management and storage capacity at national, district, and facility level.

**Table 2.1.1 Host Country Government Results**

| Table 2.1.1 Host Country Government Results     |                |                  |           |      |           |      |           |      |           |      |           |      |           |      |  |
|---|----------------|------------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|--|
|   | Total          |                  | <15       |      |           |      | 15-24     |      |           |      | 25+       |      |           |      | Source, Year   |
|   |                |                  | Female    |      | Male      |      | Female    |      | Male      |      | Female    |      | Male      |      |  |
|   | N              | %                | N         | %    | N         | %    | N         | %    | N         | %    | N         | %    | N         | %    |  |
| Total Population                                | 17,563,749     | 100              | 3,906,442 | 22.2 | 3,812,145 | 21.7 | 1,905,165 | 10.8 | 1,782,356 | 10.1 | 3,230,686 | 18.4 | 2,926,955 | 16.7 | National Statistical Office, Malawi. 2018 Preliminary Census Report for 2018                                   |
| HIV Prevalence (%)                              |                | 6.3              |           | 1.5  |           | 1.5  |           | 3.4  |           | 1.5  |           | 18.2 |           | 13   | MPHIA, 2015-16   |
| AIDS Deaths (per year)                          | 16,058         |                  | 1,043     |      | 1,070     |      | 1,282     |      | 1,012     |      | 5,838     |      | 5,816     |      | Spectrum 2019 estimates, for 2020  |
| # PLHIV   | 1,086,749      |                  | 34,257    |      | 34,939    |      | 79,789    |      | 41,799    |      | 529,539   |      | 366,426   |      | Spectrum 2019 estimates, for 2020  |
| Incidence Rate (Yr)                             |                | 0.39             |           | NA   |           | NA   |           | 0.40 |           | 0.05 |           | 0.61 |           | 0.42 | MPHIA, 2015-16   |
| New Infections (Yr)                             | 34,312         |                  |           |      |           |      |           |      |           |      |           |      |           |      | Spectrum 2019 estimates, for 2020  |
| Annual births                                   | 700,673        | 100              |           |      |           |      |           |      |           |      |           |      |           |      | Spectrum 2019 estimates, for 2020  |
| % of Pregnant Women with at least one ANC visit |                | 99.4             |           | NA   |           |      |           | 99.6 |           |      |           | 99.2 |           |      | MPHIA, 2015-16   |
| Pregnant women needing ARVs                     | 45,384         | 6.5              |           |      |           |      |           |      |           |      |           |      |           |      | Spectrum 2019 estimates, for 2020  |
| Orphans (maternal, paternal, double)            | 1,085,900      |                  | NA        |      | NA        |      | NA        |      | NA        |      | NA        |      | NA        |      | OVC rates from MDHS 2015-16 applied to 2019 projection of the population (2010 population census projections). |
| Notified TB cases (Yr)                          | 15,449         |                  | NA        |      | NA        |      | NA        |      | NA        |      | NA        |      | NA        |      | National TB Program Quarterly Data, FY2018   |
| % of TB cases that are HIV infected             | 7,347          | 48.0             | NA        | NA   | NA        | NA   | NA        | NA   | NA        | NA   | NA        | NA   | NA        | NA   | National TB Program Quarterly Data, FY2018   |
| % of Males Circumcised                          | 503,934 (0-64) | 9.2 (adults 15+) |           |      | 123,753   | 3.2  |           |      | 207,232   | 12.8 |           |      | 172,949   | 6.9  | MPHIA, 2015-16   |
| Estimated Population Size of MSM*               | 46,000         |                  |           |      |           |      |           |      |           |      |           |      |           |      | Global Fund Concept Note 2014; PLACE Study available for 6   |

|   |        |      |  |  |  |  |  |  |  |  |  |  |  |  |   |
|---|--------|------|--|--|--|--|--|--|--|--|--|--|--|--|---|
|   |        |      |  |  |  |  |  |  |  |  |  |  |  |  | districts only (2016)<br>with additional<br>districts in progress           |
| MSM HIV<br>Prevalence   |        | 18.2 |  |  |  |  |  |  |  |  |  |  |  |  | Lancet, Geographical<br>disparities in HIV<br>Prevalence among<br>MSM, 2017 |
| Estimated<br>Population<br>Size of FSW  | 36,700 |      |  |  |  |  |  |  |  |  |  |  |  |  | Malawi Place Report,<br>May 2018  |
| FSW HIV<br>Prevalence   |        | 62.7 |  |  |  |  |  |  |  |  |  |  |  |  | IBBS 2015 for<br>prevalence   |
| Estimated<br>Population<br>Size of PWID   | NA     |      |  |  |  |  |  |  |  |  |  |  |  |  |   |
| PWID HIV<br>Prevalence  |        | NA   |  |  |  |  |  |  |  |  |  |  |  |  |   |
| Estimated<br>Size of<br>Priority<br>Populations<br>(specify)  |        |      |  |  |  |  |  |  |  |  |  |  |  |  |   |
| Estimated<br>Size of<br>Priority<br>Populations<br>Prevalence<br>(specify)  |        |      |  |  |  |  |  |  |  |  |  |  |  |  |   |
| <i>*If presenting size estimate data would compromise the safety of this population, please do not enter it in this table.<br/>Cite sources</i> |        |      |  |  |  |  |  |  |  |  |  |  |  |  |   |

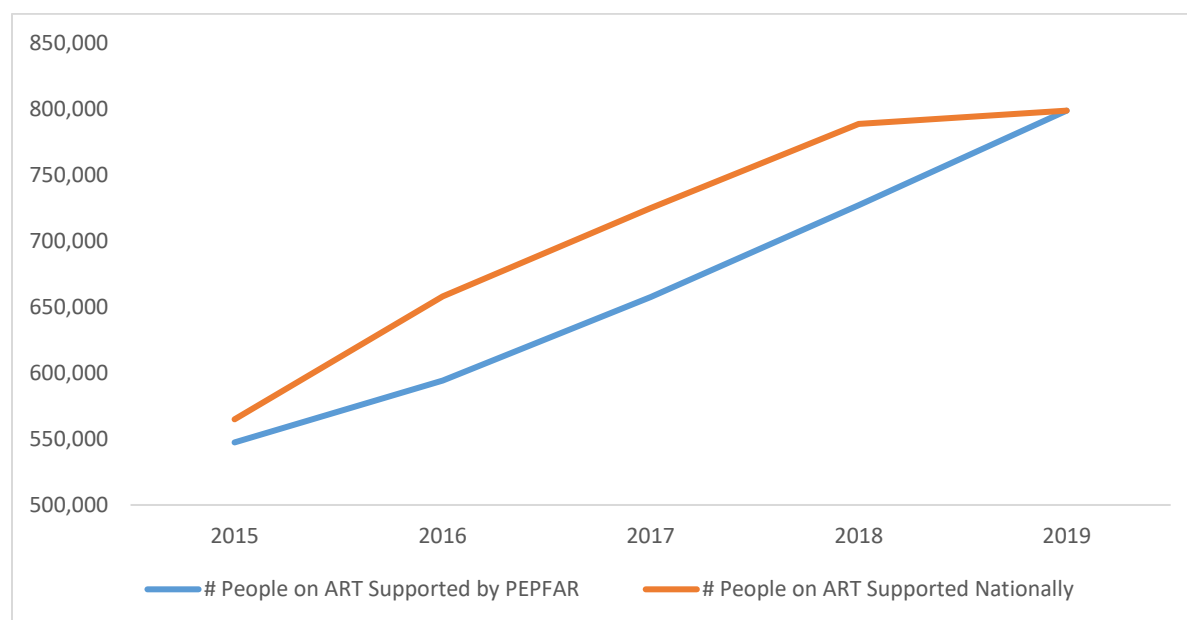


**Table 2.1.2 90-90-90 Cascade: HIV Diagnosis, Treatment, and Viral Suppression**

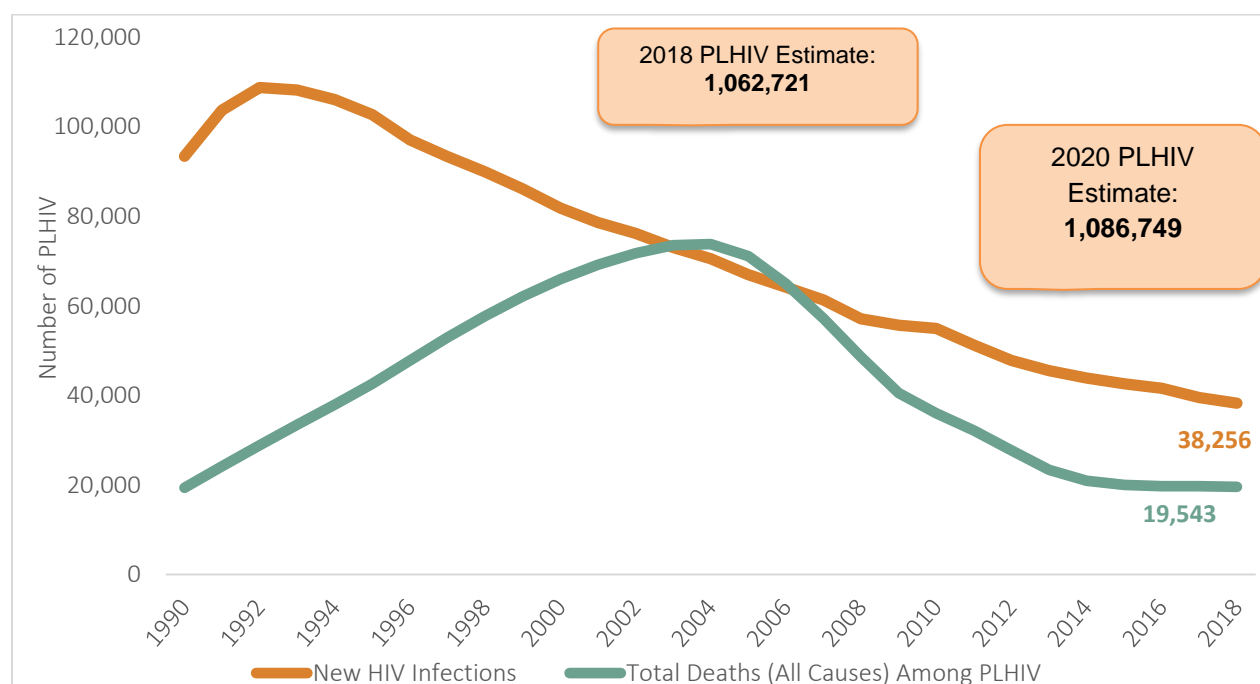
| Table 2.1.2 90-90-90 cascade: HIV diagnosis, treatment and viral suppression* |                                       |                       |                              |                        |                                     |                     |                          |   |                               |                         |
|---|---------------------------------------|-----------------------|------------------------------|------------------------|-------------------------------------|---------------------|--------------------------|---|-------------------------------|-------------------------|
| Epidemiologic Data  |                                       |                       |                              |                        | HIV Treatment and Viral Suppression |                     |                          | HIV Testing and Linkage to ART Within the Last Year |                               |                         |
|   | Total Population Size Estimate<br>(#) | HIV Prevalence<br>(%) | Estimated Total PLHIV<br>(#) | PLHIV diagnosed<br>(#) | On ART<br>(#)                       | ART Coverage<br>(%) | Viral Suppression<br>(%) | Tested for HIV<br>(#)                               | Diagnosed HIV Positive<br>(#) | Initiated on ART<br>(#) |
| Total population  | 18,044,601                            | 6%                    | 1,062,731                    | 948,359                | 786,573                             | 74%                 | 65%                      | 4,329,760   | 140,509                       | 128,179                 |
| Population <15 years  | 7,851,058                             | 1%                    | 79,834                       | 62,577                 | 45,169                              | 57%                 | 42%                      | --  | --                            | --                      |
| Men 15-24 years   | 1,829,101                             | 2%                    | 29,885                       |                        | 14,844                              | 50%                 |                          | --  | --                            | --                      |
| Men 25+ years   | 3,047,456                             | 11%                   | 349,318                      |                        | 252,095                             | 72%                 |                          | --  | --                            | --                      |
| Women 15-24 years   | 1,924,401                             | 4%                    | 81,021                       |                        | 50,386                              | 62%                 |                          | --  | --                            | --                      |
| Women 25+ years   | 3,392,600                             | 15%                   | 552,688                      |                        | 424,081                             | 81%                 |                          | --  | --                            | --                      |
|   |                                       |                       |                              |                        |                                     |                     |                          |   |                               |                         |
| MSM   | --                                    | --                    | --                           | --                     | N/A                                 | N/A                 | N/A                      | 1,660   | 220                           | 203                     |
| FSW   | --                                    | --                    | --                           | --                     | N/A                                 | N/A                 | N/A                      | 6,247   | 1,575                         | 1,025                   |
| PWID  | N/A                                   | N/A                   | N/A                          | N/A                    | N/A                                 | N/A                 | N/A                      | N/A   | N/A                           | N/A                     |
| Priority Pop (specify)  | N/A                                   | N/A                   | N/A                          | N/A                    | N/A                                 | N/A                 | N/A                      | N/A   | N/A                           | N/A                     |

Source: Spectrum 19, Eaton SAE. \*Program data not available at national level for testing and treatment cascade.

**Figure 2.1.3 National and PEPFAR Trend for Individuals Currently on Treatment**



**Figure 2.1.4 Trend of New Infections and All-Cause Mortality among PLHIV**



**Table 2.1.5 Implementation of Policies to Address Minimum Program Requirements in COP19**

|   |  |
|---|--|
| 1. Adoption and implementation of Test and Start with demonstrable access across all age, sex, and risk groups (required in COP16).   | Test and Start services are available in all ART sites.  |
| 2. Adoption and implementation of differentiated service delivery models, including six-month multi-month scripting (MMS) and delivery models to improve identification and ARV coverage of men and adolescents (required in COP16).                | Malawi has offered three-month dispensing for several years. Six-month multi-month dispensing services will be available beginning April 2019. Other differentiated service delivery models such as Teen Clubs and Advanced Patient Care are already underway.   |
| 3. Completion of TLD transition, including consideration for women of childbearing potential and adolescents, and removal of Nevirapine-based regimens (required in COP18).   | Malawi began transition to TLD in January 2019. PEPFAR will support the complete transition to TLD including women of childbearing age. The goal is to reach 90% of all PLHIV cohort on DTG containing regimens by January 2020. PEPFAR will ensure that no Nevirapine containing formulations (except for PMTCT) are used beyond September 30, 2019 and following phase-out of NVP-based adult and pediatric formulations, PEPFAR will support safe disposal of all remaining NVP-based formulations. |
| 4. Scale up of index testing and self-testing, and enhanced pediatric and adolescent case finding, ensuring consent procedures, and confidentiality protection and establishment of intimate partner violence (IPV) monitoring (required in COP18). | Active index testing will be scaled up to all PEPFAR supported scale-up sites (10 districts) in FY19. In COP19, PEPFAR will strengthen implementation fidelity in the scale-up districts and further roll-out services to high volume facilities in sustained districts. PEPFAR will work with MOH and IPs to ensure IPV screening for all index clients, with a functional adverse event monitoring system.   |
| 5. TB preventive treatment (TPT) for all PLHIV must be scaled-up as an integral and routine part of the HIV clinical care package (required in COP18).  | PEPFAR will continue supporting isoniazid-based TPT services in five high burden TB districts. PEPFAR will collaborate with KNCV through UNITAID funding and   |

|  |   |
|--|---|
|  | MOH to implement 3 month isoniazid rifapentine (3HP) in five additional districts. IPs will also support the integration of 3HP in DSD models. The goal is to reach all PLHIV with TPT (preferably 3HP, pending price reductions) in COP20.   |
| 6. Direct and immediate (>95%) linkage of clients from testing to treatment across age, sex, and risk groups.  | PEPFAR will aim to achieve >95% linkage rate by strengthening its current linkage systems with special focus to young people whose current linkage rates are much lower than adult men and women.   |
| 7. Elimination of all formal and informal user fees in the public sector for access to all direct HIV services and related services, such as ANC, TB, and routine clinical services, affecting access to HIV testing and treatment and prevention (required in COP17 and COP18).   | Malawi's policy does not allow user fees to be charged for HIV services. All HIV services in public facilities are currently free of charge.  |
| 8. Completion of viral load/EID optimization activities and ongoing monitoring to ensure reductions in morbidity and mortality across age, sex, and risk groups, including >80% access to annual viral load testing and reporting.   | PEPFAR will intensify its site-level analyses to identify specific bottlenecks to viral load/EID scale-up. PEPFAR will implement tailored interventions by using quality improvement approaches and through a national Tizirombo Tochepa= Thanzi T=T campaign to increase viral load coverage and suppression levels.                                     |
| 9. Monitoring and reporting of morbidity and mortality outcomes including infectious and non-infectious morbidity (required in COP18).   | Through the scale-up of EMRS and active tracing systems for PLHIV who missed their appointments or defaulted from care, PEPFAR will closely monitor morbidity and mortality outcomes using case based surveillance.   |
| 10. Alignment of OVC packages of services and enrollment to provide comprehensive prevention and treatment services to OVC ages 0-17, with particular focus on adolescent girls in high HIV-burden areas, 9-14 year-old girls and boys in regard to primary prevention of sexual violence and HIV, and children and adolescents living with HIV who require socioeconomic support, | Through direct service delivery, PEPFAR Malawi will provide comprehensive HIV impact-mitigation, prevention, and treatment services to OVC (aged 0-17) and their households to address contributing factors to vulnerability. Activities will span four domains (healthy, safe, stable, and schooled) coordinated through robust case management efforts. |

|  |  |
|--|--|
| including integrated case management (required in COP17 and COP18).  | Adolescents continue to be a focus; hence, COP19 includes a deliberate increase of targets for OVC in the 10 -17 age groups with a special focus on preventing sexual violence and HIV among 9-14 year old girls and boys.   |
| 11. Evidence of resource commitments by host governments with year after year increases (required in COP14). | Sustainable financing of HIV/TB services is a priority and frequent topic of conversation between the U.S. Government, the Government of Malawi, and the Global Fund stakeholders. Under the prior Global Fund grant, Malawi contributed \$11 million in co-financing and willingness to pay. The contribution under the current grant requires \$33 million in Malawian co-financing.                             |
| 12. Clear evidence of agency progress toward local, indigenous partner prime funding (required in COP18).    | In 2018, PEPFAR Malawi budgeted \$38,042,485 for local organizations <sup>14</sup> . In 2019, this amount will increase due to new awards targeted for local organizations.  |
| 13. Scale up of unique identifiers for PLHIV across all sites.   | PEPFAR Malawi is making good progress toward deploying a national unique identifier for all PLHIV, and has supported the MOH in developing a system, with technical support from BHT, that has the ability to uniquely identify PLHIV and trace them as they move between facilities in Malawi. This system has been tested and is currently being scaled up to all sites with electronic medical records systems. |

<sup>14</sup> For PEPFAR's definition of "local partner", please refer to the "PEPFAR 2019 Country Operational Plan Guidance" Page 80 "Definition of a Local Partner" section here: <https://www.pepfar.gov/documents/organization/288160.pdf>

## 2.2 Investment Profile

**Table 2.2.1 Annual Investment by Program Area**

| Program Area                 | Absolute Total     | Absolute PEPFAR 2019 | Absolute GF       | Absolute Host Country | Absolute Other * |
|------------------------------|--------------------|----------------------|-------------------|-----------------------|------------------|
| Clinical CTS                 | 123,795,998        | 52,869,853           | 70,724,315        | 141,732               | 60,098           |
| Community-based CTS          | 7,665,163          |                      | 7,339,635         | -                     | 325,528          |
| PMTCT                        | -                  |                      |                   |                       |                  |
| HTC                          | 18,635,881         | 18,366,909           | 134,486           |                       | 134,486          |
| VMMC                         | 17,947,972         | 17,613,255           | 148,284           |                       | 186,433          |
| Prevention                   | 12,038,757         | 4,536,174            | 1,657,756         | 2,574,227             | 3,270,600        |
| Priority and Key Population  | 4,218,084          | 1,737,106            | 2,327,426         |                       | 153,552          |
| OVC                          | 8,089,380          | 7,351,083            |                   | 39,193                | 699,104          |
| Laboratory                   | 2,660,607          | 2,660,607            |                   | -                     |                  |
| SI, Surveys and Surveillance | 10,579,351         | 9,930,351            |                   | -                     | 649,000          |
| HSS                          | 20,017,446         | 7,037,224            | 7,510,647         | 2,839,021             | 2,630,554        |
| <b>TOTAL</b>                 | <b>225,648,638</b> | <b>122,102,561</b>   | <b>89,842,549</b> | <b>5,594,173</b>      | <b>8,109,355</b> |

*Source: PEPFAR figures extracted from Expenditure Report 2018; 2017 Global AIDS Monitoring report - National Funding Matrix*

*\*Absolute other includes Dev.Ban, Multilateral and other international organisations*

*AGYW & PMTCT expenses spread across program areas so not reported separately*

**Table 2.2.2 Annual Procurement Profile for Key Commodities**

| Table 2.2.2 Annual Procurement Profile for Key Commodities |                    |          |           |                 |          |
|--|--------------------|----------|-----------|-----------------|----------|
| Commodity Category   | Total Expenditure  | % PEPFAR | % GF      | % Host Country* | % Other  |
| ARVs   | 75,414,885         | -        | 100       | -               | -        |
| Rapid test kits  | 12,183,157         | 4        | 96        | -               | -        |
| Other drugs (OI)   | 10,866,353         | -        | 100       | -               | -        |
| Lab reagents   | 8,234,832          | 7        | 93        | -               | -        |
| Condoms  | 6,810,368          | 21       | 79        | -               | -        |
| Viral Load commodities                                     | 11,315,436         | 2        | 98        | -               | -        |
| VMMC kits  | 4,906,740          | 59       | 41        | -               | -        |
| MAT  | -                  | -        | -         | -               | -        |
| Other commodities (IpT)                                    | 1,932,615          | -        | 100       | -               | -        |
| <b>Total</b>   | <b>131,664,386</b> | <b>4</b> | <b>96</b> | <b>-</b>        | <b>-</b> |

\*Government of Malawi allocated \$30.8M as a lump sum in the national drug budget for 2018/19 for essential medicines (excluding ARVs, RTKs, VMMC kits, and condoms)

**Table 2.2.3 Annual USG Non-PEPFAR Funding Investment and Integration**

| Table 2.2.3 Annual USG Non-PEPFAR Funded Investments and Integration |                                |  |                 |                                    |  |
|--|--------------------------------|--|-----------------|------------------------------------|--|
| Funding Source   | Total USG Non-PEPFAR Resources | Non-PEPFAR Resources Co-Funding PEPFAR IMs | # Co-Funded IMs | PEPFAR COP Co-Funding Contribution | Objectives   |
| USAID MCH  | \$16,500,000                   | \$1,200,000                                | 2               | \$4,164,901*                       | Reduce maternal and child morbidity and mortality, strengthen health systems to deliver primary health care services. Co-funded mechanisms support commodities, supply chain, and host-country institutional development.  |
| USAID TB   | \$2,000,000                    |  | 0               | 0                                  | Strengthen TB screening prevention, diagnosis, and treatment, including for MDR TB. Build institutional capacity of TB diagnostic network. Coordinated with PEPFAR investments.  |
| USAID Malaria  | \$24,000,000                   | \$11,414,500                               | 2               | \$4,164,901*                       | These co-funded mechanisms support commodities, supply chain management, and host-country institutional development.   |
| USAID Family Planning  | \$11,000,000                   | \$3,150,000                                | 2               | \$4,164,901*                       | These co-funded mechanisms support commodities, supply chain management, and host-country policy and institutional capacity development.   |
| Department of State, Office of Global Women's Issues                 | \$6,000,000                    | 0  | 0               | 0                                  | Reduce gender-based violence (GBV) through the active engagement of traditional authorities (cultural gate keepers), leveraging existing platforms to encourage cultural change from the leadership level (e.g. Paramount Chiefs). Coordinated closely with PEPFAR investments (e.g., DREAMS). |
| <b>Total</b>   | <b>\$59,500,000</b>            | <b>\$15,764,500</b>                        | <b>2**</b>      | <b>\$4,164,901*</b>                |  |

\*This amount reflects the total PEPFAR contribution to the same two co-funded mechanism.

\*\*There is a total of two co-funded mechanisms in COP19.

**Table 2.2.4 Annual PEPFAR Non-COP Resources, Central Initiatives, PPP, HOP**

| Table 2.2.4 Annual PEPFAR Non-COP Resources, Central Initiatives, PPP, HOP |                                |                            |                                     |                 |                                    |  |
|--|--------------------------------|----------------------------|-------------------------------------|-----------------|------------------------------------|--|
| Funding Source   | Total PEPFAR Non-COP Resources | Total Non-PEPFAR Resources | Total Non-COP Co-funding PEPFAR IMs | # Co-Funded IMs | PEPFAR COP Co-Funding Contribution | Objectives   |
| Secondary Education Expansion Development                                  | \$20,000,000                   | \$20,000,000               | \$20,000,000                        | 2               | 0                                  | Increasing access to secondary school for AGYW to reduce HIV incidence, unwanted pregnancy, early marriage and gender-based violence                       |
| PEPFAR Faith-based Initiative  | \$14,000,000                   | \$500,000                  | 0                                   | 5               | \$1,450,000                        | Enhancing engagement with communities of faith to reach men with testing and treatment, and new engagement in community activism to combat sexual violence |
| Cervical Cancer Initiative   | \$2,199,935                    | 0                          | 0                                   | 7               | \$2,200,000                        | To reduce morbidity and mortality in women living with HIV due to cervical cancer.   |
| <b>Total</b>   | <b>\$36,199,935</b>            | <b>\$20,500,000</b>        | <b>\$20,000,000</b>                 | <b>12*</b>      | <b>\$3,650,000</b>                 |  |

\*This total accounts for mutually exclusive mechanisms.

## 2.3 National Sustainability Profile Updates

Sustainability is an integral part of COP19 investment decision discussions. PEPFAR's Sustainability Index and Dashboard (SID) tool assesses the current state of sustainability of the national HIV/AIDS response in PEPFAR countries. The SID measures four domains: governance, leadership and accountability; national health systems and delivery; strategic investments, efficiency and sustainable financing; and strategic information.

Every other year, the SID is updated through a consultative process, last completed in early October 2017, which highlighted key elements that will be addressed in COP19. SID 3.0 was facilitated by UNAIDS and PEPFAR with support from civil society, the National AIDS Commission (NAC), and the MOH. The SID 3.0 Dashboard Scores Snapshot (Figure 2.3.1) reflects SID results.



Figure 2.3.1 SID 3.0 Results –Dashboard Scores Snapshot<sup>15</sup>

| Sustainability Analysis for Epidemic Control: Malawi |   |                |      |      |
|--|---|----------------|------|------|
| Epidemic Type: Generalized                           |   |                |      |      |
| Income Level: Low income                             |   |                |      |      |
| PEPFAR Categorization: Long-term Strategy            |   |                |      |      |
| PEPFAR COP 17 Planning Level: 74,786,369             |   |                |      |      |
|  | 2015 (SID 2.0)  | 2017 (SID 3.0) | 2019 | 2021 |
| SUSTAINABILITY DOMAINS AND ELEMENTS                  | <b>Governance, Leadership, and Accountability</b>                   |                |      |      |
|  | 1. Planning and Coordination  | 9.00           | 8.62 |      |
|  | 2. Policies and Governance  | 8.64           | 6.12 |      |
|  | 3. Civil Society Engagement   | 5.86           | 4.58 |      |
|  | 4. Private Sector Engagement  | 4.47           | 4.61 |      |
|  | 5. Public Access to Information                                     | 6.00           | 6.00 |      |
|  | <b>National Health System and Service Delivery</b>                  |                |      |      |
|  | 6. Service Delivery   | 5.65           | 5.00 |      |
|  | 7. Human Resources for Health                                       | 6.83           | 7.78 |      |
|  | 8. Commodity Security and Supply Chain                              | 4.16           | 3.72 |      |
|  | 9. Quality Management   | 6.05           | 4.67 |      |
|  | 10. Laboratory  | 6.11           | 6.25 |      |
|  | <b>Strategic Investments, Efficiency, and Sustainable Financing</b> |                |      |      |
|  | 11. Domestic Resource Mobilization                                  | 5.00           | 5.48 |      |
|  | 12. Technical and Allocative Efficiencies                           | 3.02           | 5.33 |      |
|  | <b>Strategic Information</b>  |                |      |      |
|  | 13. Epidemiological and Health Data                                 | 2.96           | 5.08 |      |
|  | 14. Financial/Expenditure Data                                      | 4.58           | 6.67 |      |
|  | 15. Performance Data  | 3.78           | 7.47 |      |

Reflecting on these results, the active engagement of stakeholders (civil society organizations, the private health sector, the business and corporate sector, and external agencies, both donors and multilateral organizations, etc.) in the national strategy development remains a strength. PEPFAR continues to create platforms and opportunities for the collaboration and coordination of the HIV/AIDS response to leverage contributions from other donors to share PEPFAR program performance data, discuss implementation challenges, and brainstorm collective evidence based approaches while complementing MOH efforts.

Malawi's National Strategic Plan for HIV/AIDS 2015-2020 (NSP), currently under review, informs PEPFAR and Global Fund investments. Malawi's HIV clinical data (a harmonized national monitoring and evaluation system) is regularly available and complemented by surveys (e.g. MPHIA) and surveillance (e.g. recency). In COP19, PEPFAR will strengthen and expand the rollout of right-sized electronic medical records and reporting systems (EMRS) to be able to collect finer disaggregated data across facilities. The components of the electronic solution will feed its data into existing individual-level, site-level and other aggregated systems such as the Malawi DHIS2 installation and the analysis system developed by KUUNIKA (a Bill and Melinda Gates Foundation funded project in Malawi), as well as individual level.

PEPFAR program data informed the MOH's adoption of active case finding, which was piloted in the 5.5 scale-up districts. Malawi recently approved policies - self-testing, oral pre-exposure prophylaxis (PrEP), multi--month scripting (six months), annual viral load etc. - in line with the

<sup>15</sup> Scores are 0-10 per the SID guidance and scores are mutually agreed upon through the SID consultative process including GOM, Civil Society and other key stakeholders

World Health Organization (WHO) guidelines to ensure epidemic control. In COP19, there is a need for continued engagement with stakeholders and MOH/Department of HIV/AIDS (DHA) to ensure scale-up of these policies nationally. The government also has the ability to collect expenditure data effectively using the Global AIDS Monitoring (GAM), National AIDS Spending Assessment (NASA), and National Health Accounts (NHA).

High scores for Human Resources for Health (HRH) can be attributed primarily to the large number of effective health care workers (HCWs) cadres largely supported by donors. These lay HCWs include facility-based HIV Diagnostic Assistants (HDAs), mentor mothers, expert clients, and community cadres who support HIV activities beyond the facility. Although there is significant support for HRH in Malawi, inadequate HRH remains a challenge at all levels of the HIV response. As clarified below in Section 6.1.1, in COP19, PEPFAR will maintain surge salary support for HCWs, provide scholarships to enrolled students, strengthen HRH planning and management, and recruit additional community HCWs (HSAs and HDAs) including community nurses to work on the frontline of the HIV response. However, the GOM must develop a robust human resources management system to promote HRH retention and professional development.

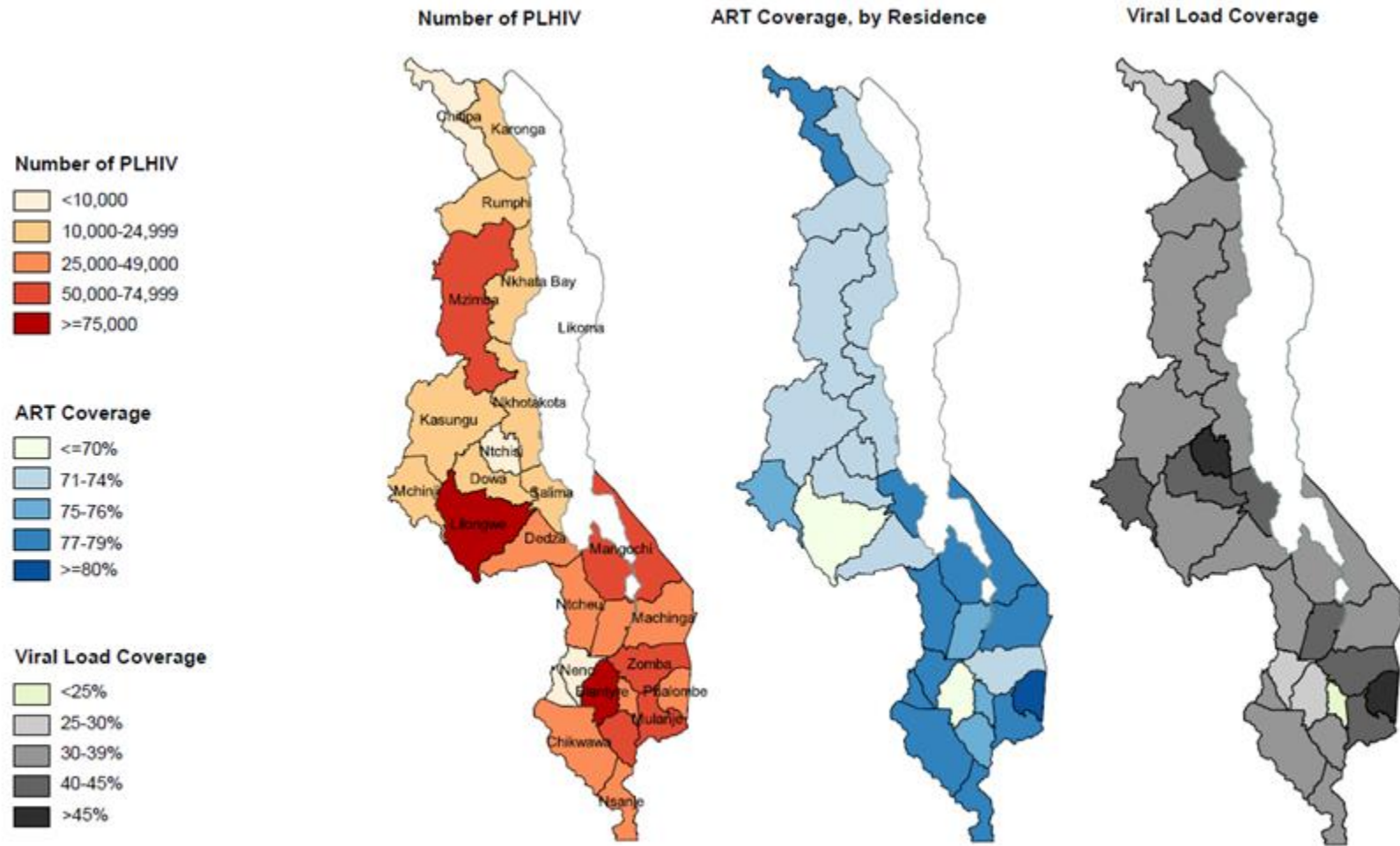
Malawi's overall state of economic development contributed to a low score for Domestic Resource Mobilization in 2017. This remains a concern. The Malawi HIV/AIDS national response is donor-dependent; the country needs both a health financing strategy and a domestic resource mobilization strategy. Malawi uses few domestic resources for the purchase of HIV-related commodities. Currently, the supply chain for HIV and TB is almost entirely supported by the Global Fund. The current system functions well and ensures commodities are available over 90% of the time. PEPFAR Malawi and the U.S. Embassy in Lilongwe continue to advocate for an increased government commitment to funding the national HIV/AIDS response.

To sustain epidemic control, PEPFAR Malawi is working to transition greater amounts of funding and service delivery implementation to local organizations. For new awards made in COP18 and COP19, PEPFAR is actively looking for opportunities to engage local organizations as prime partners in order to contribute to this global PEPFAR priority as well as a key part of a sustainable response. In 2018, PEPFAR Malawi budgeted \$38,042,485 for local organizations. In 2019, this amount will increase due to a number of new awards, some of which are targeted to engage local organizations.

## **2.4 Alignment of PEPFAR investments geographically to disease burden**

The maps below show district-level HIV burden, ART coverage, and viral load coverage. PEPFAR strategically focuses investments in high-burden scale-up districts. In COP19, PEPFAR will expand its focus to the 10 scale-up districts with the greatest PLHIV burden and largest remaining gaps to 90% ART coverage: Blantyre, Chikwawa, Lilongwe, Machinga, Mangochi, Mulanje, Mzimba, Phalombe, Thyolo, and Zomba. One additional scale-up district, Chiradzulu, will be added in COP19 as it sits between several priority districts, has a high HIV burden, and receives nearly 40% of its clients from neighboring scale-up districts.

Figure 2.4.1 PEPFAR Operating Unit: People Living with HIV, Treatment Coverage, and Viral Load Monitoring Coverage



Note: VL coverage is based on annual viral load target

Source: Eaton SAE and DHA program results, FY18 APR

## 2.5 Stakeholder Engagement

**Government of Malawi:** PEPFAR Malawi meets frequently with DHA to collaborate on program planning, implementation, monitoring, and policy-related issues. PEPFAR Malawi also works with other key units in the MOH, including the Directorates of Planning, Human Resources, Health Technical Support Services Department (includes Diagnostics and Supply Chain Management), the National TB Program, and the Central Monitoring and Evaluation Department. PEPFAR collaborates closely with the Ministry of Gender, Children, Disability and Social Welfare (MoGCSW) to expand and improve the quality of programming to support orphans and vulnerable children. As Malawi implements its cross-sectoral AGYW strategy, PEPFAR interacts with the Ministries of Education and Youth. PEPFAR also works with the National Registration Bureau on issues related to the use of the national ID card and other unique identifier issues. Specific engagement includes:

- **Leadership-level:** With support from the PEPFAR team, the Chief of Mission frequently engages with senior Government of Malawi (GOM) officials – particularly the Minister of Health, the Chief Secretary, and the Secretary of Health – to promote a strategic, targeted, and effective HIV response, while assuring continued coordination with GOM priorities.
- **District-Level:** PEPFAR meets with District Commissioners and District Health Management Teams (DHMT) when conducting SIMS or site visits and when MOH convenes DHMTs.
- **Technical Working Groups and Task Forces:** PEPFAR staff participate in GOM technical working groups (TWGs) and meet as needed to coordinate program implementation and monitoring efforts. The HIV Testing Core Group and National ART TWG are robust national coordinating structures. PEPFAR works closely with the NAC, particularly on VMMC, DREAMS, and key populations programming. NAC convenes the national AGYW Task Force, which was critical to national and district roll-out of DREAMS programming, as well as the national key populations TWG.
- **PEPFAR Convened Strategy Planning, Development and Monitoring:** With PEPFAR support, MOH and NAC officials participated in the 2019 COP meeting in Johannesburg, South Africa. Drawing on successful data review and stakeholder meetings, PEPFAR continues to hold quarterly joint meetings with MOH, as well as other key stakeholders, to review programmatic performance, share successes, and discuss implementation challenges for shared solutions.

**Global Fund and Other External Donors:** The PEPFAR Malawi team participates in the monthly HIV/AIDS Donor Group (HADG), the Health Development Partners Group (HDG), and the Global Fund Country Coordination Mechanism (CCM). PEPFAR meets regularly with other donors, including UNAIDS, WHO, DfID, and GIZ, through these mechanisms and independently as needed. For example, PEPFAR collaborates closely with UNAIDS on Spectrum and other analyses as well as areas of HIV prevention as UNAIDS implements its new HIV Roadmap. For the Global Fund, the CDC Health Services Branch Chief sits on the Country Coordinating Mechanism's (CCM)

Oversight Committee and is the Chair of the Resource Mobilization Committee. These forums bring together bilateral and multilateral donors, government, civil society, and international non-governmental organizations (iNGOs) to discuss progress and coordination of national health programming investments and identify solutions for obstacles and bottlenecks.

PEPFAR maintains strong and productive engagement with the Global Fund Country Team based in Geneva as well as the entities on the ground governing and managing Global Fund resources. The U.S. Government (USG) staff actively support the implementation of the new Global Fund TB/HIV and Malaria Malawi grants for Allocation Period 2017-2019 (valued at \$450 million). To optimize program investments, PEPFAR actively engages in Global Fund proposal development, grant-making, planning, implementation, and monitoring. In FY20, PEPFAR will continue coordinating with the Global Fund Principal Recipient for AGYW and key populations investments, ActionAid, to ensure complementary programming with no geographic overlap and to extend program reach to as many high burden districts as possible while maintaining quality and impact. This collaboration includes sharing of monitoring and evaluation frameworks and tools, curricula materials, and joint site visits for shared learning.

PEPFAR is also working closely with the Global Fund to accelerate the transition to Dolutegravir (currently underway) and to ensure funding for key investment areas, such as annual viral load platforms (including reagents) and other key commodities required for program implementation.

PEPFAR Malawi leadership communicates regularly with the Global Fund Country Team on key programming decisions, and the Fund Portfolio Manager meets with the Ambassador on every visit to Malawi. USG staff – including PEPFAR, the President’s Malaria Initiative (PMI), and USAID supply chain technical staff – meet quarterly with the Local Fund Agent (LFA) to share information and ensure resources and grant implementation is on track. PEPFAR, through USG Global Fund technical assistance resources (the 5% set-aside), funded the creation of the Program Implementation Unit (PIU) at the MOH. The PIU is legally responsible for programmatic results and financial accountability for the Global Fund-financed AIDS, TB, and Malaria programs. The PIU’s role is complementary to the governance and oversight role of the Country Coordinating Mechanism.

**Civil Society:** Starting in 2016, PEPFAR Malawi has held quarterly stakeholder meetings to engage civil society organizations (CSOs), including FBOs and networks, to review PEPFAR progress and plan efforts in partnership with the MOH, NAC, and UNAIDS. This engagement includes collaboration to develop solutions to challenges down to the site level both within broader stakeholder meetings and smaller meetings between PEPFAR and local CSO leaders.

Recent engagement leading up to and including COP19 development includes:

- **January 21<sup>st</sup>, 2019:** CSOs – including significant representation from indigenous faith-based organizations and faith-based development partners – gathered with PEPFAR field

and headquarters representatives to discuss faith-based responses to the HIV epidemic, particularly to review ways to combat charismatic (and non-effective) “faith-healing” (affecting retention) and gaps in engaging boys and men. This meeting included representation by Malawi’s PEPFAR Chair, Dr. Mamadi Yilla, along with the PEPFAR Program Manager, Emily Kearney, and the S/GAC Senior Gender Advisor, Janet Saul.

- **February 13<sup>th</sup>, 2019:** Civil society hosted a first-ever presentation of the “People’s COP”. U.S. Ambassador to Malawi Virginia Palmer and members of the PEPFAR team participated in the meeting.
- **February 27<sup>th</sup>, 2019:** PEPFAR hosted a COP19 delegation session including representatives from local CSOs and FBOs, the Ministry of Health, and the interagency team.
- **March 12<sup>th</sup>, 2019:** Civil society along with the Ministry of Health, multilateral institutions and implementers discussed the outcomes and strategic direction established at the COP19 meeting as well as next steps for further engagement and input into the collective COP19 development process.
- **March 19<sup>th</sup>, 2019:** PEPFAR met with CSOs, including FBOs, to discuss the critical policy decisions from the Johannesburg COP19 meeting and opportunities for maintaining momentum in Malawi. The dialogue also included updates on investments, local implementer shifts, and next steps for the review of the Strategic Directive Summary (SDS).
- **March 21<sup>st</sup>, 2019:** PEPFAR Malawi shared the SDS with CSO leadership for review and input, providing additional review time as CSOs requested in 2018.
- **March 25<sup>th</sup>, 2019:** PEPFAR met with CSOs, including FBOs, at the Malawi Network of AIDS Service Organizations (MANASO), to discuss feedback on the SDS. PEPFAR incorporated CSO input throughout the document to clarify and amplify shared goals in fighting HIV in Malawi

**Private Sector:** Private sector engagement in Malawi occurs primarily through public-private partnerships and foundation investment. A few examples include:

- **Girl Effect Foundation**, a global DREAMS private-sector partner, worked closely with PEPFAR Malawi and the National DREAMS Task Force to develop a youth brand (“Zathu”, roughly translates as “together”) and to provide mass media communication support for the implementation of AGYW interventions, including engaging boys and girls together. This collaboration includes engaging behavior change communications content to DREAMS’ Go! Girls Clubs.
- Through a public partnership with the **Elizabeth Taylor AIDS Foundation**, PEPFAR Malawi intensifies case finding and treatment efforts for men in Mulanje district.
- To meet COP18 targets to reach men for testing and linkage to treatment, PEPFAR works with **private sector employers**, including **tea and tobacco estates**, to improve access to and utilization of services.
- Through **Johnson & Johnson** support and partnership, the DREAMS Ambassadors in Malawi participated in capacity-building and networking activities in 2016. DREAMS

Ambassadors meet with PEPFAR to contribute to solution development for reaching youth with prevention, testing, and treatment adherence. The DREAMS Ambassadors also serve as peer leaders and mentors in delivering social assets strengthening programs.

- The **Bill and Melinda Gates Foundation** (BMGF), which includes Malawi as one of four focus countries for HIV investment, coordinates closely with PEPFAR to ensure activities are complementary and coordinated. For example, PEPFAR and BMGF work together on investments to strengthen data systems in Malawi and are currently exploring efforts to implement annual viral load results reporting. PEPFAR anticipates these discussions will translate into complementary funding from BMGF for demand creation through civil society networks and new platforms leveraging SMS technology.

### 3.0 Geographic and Population Prioritization

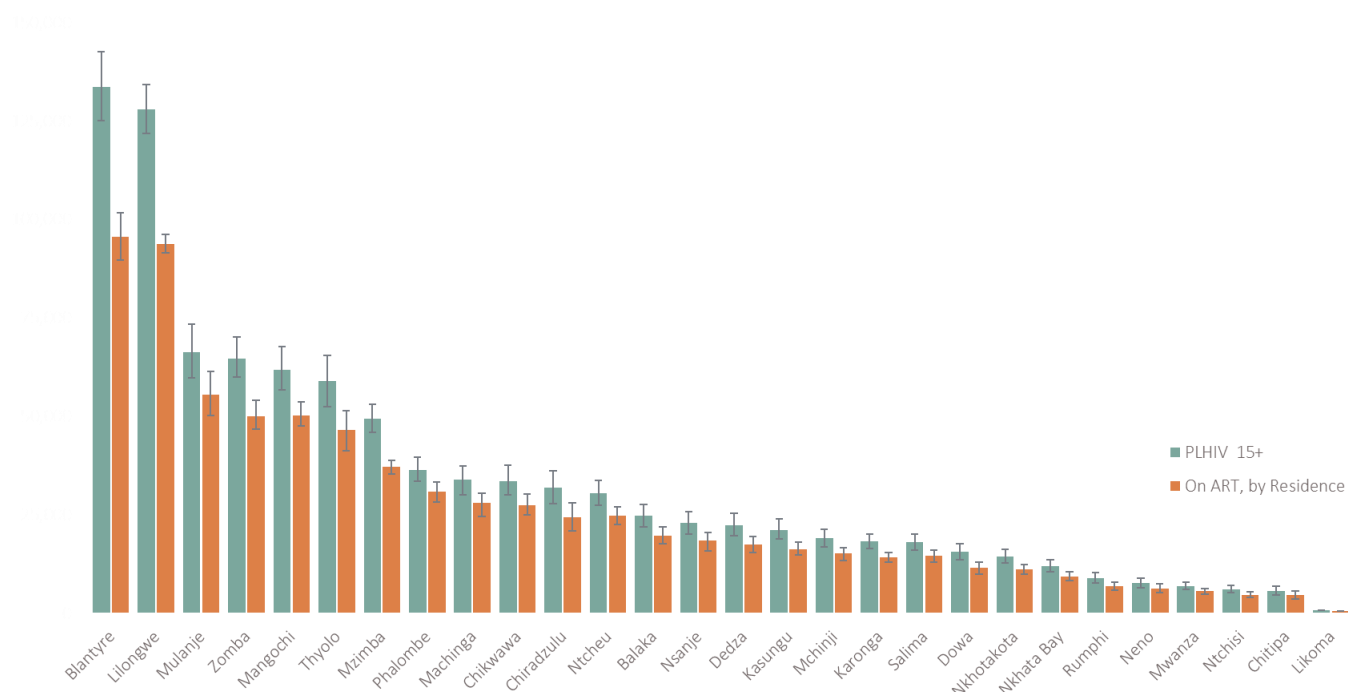
**Table 3.1 Current Status of ART Saturation**

| Table 3.1 Current Status of ART saturation |                                      |                         |                       |                       |
|--|--------------------------------------|-------------------------|-----------------------|-----------------------|
| Prioritization Area                        | Total PLHIV/% of all PLHIV for COP19 | # Current on ART (FY18) | # of SNU COP18 (FY19) | # of SNU COP19 (FY20) |
| Attained                                   |                                      |                         |                       |                       |
| Scale-up Saturation                        | 741,324                              | 545,540                 | 10                    | 10                    |
| Scale-up Aggressive                        | 35,485                               | 26,508                  | 0                     | 1                     |
| Sustained                                  | 285,587                              | 214,525                 | 18                    | 17                    |
| Central Support                            |                                      |                         |                       |                       |
| <b>Total</b>                               | <b>1,062,731</b>                     | <b>786,573</b>          | <b>28</b>             | <b>28</b>             |

Source: Spectrum 19, Eaton SAE, End of FY18

In preparation for COP19, PEPFAR Malawi worked with Jeff Eaton from the UNAIDS Reference Group on Estimates, Modelling, and Projections, DHA, the Spectrum team, and other key stakeholders to understand HIV burden, prevalence, incidence and ART coverage by district of residence, age, and sex. The final model incorporated inputs from the Malawi Population-Based HIV Impact Assessment (MPHIA), the Malawi Demographic and Health Survey (DHS), and from FY18 DHA program results.

**Figure 3.1.1 Number of PLHIV and Number on ART by District of Residence (Adults 15+), FY18 – Highest Burden and Greatest Coverage Gaps Still in the 10 Scale-Up Districts**



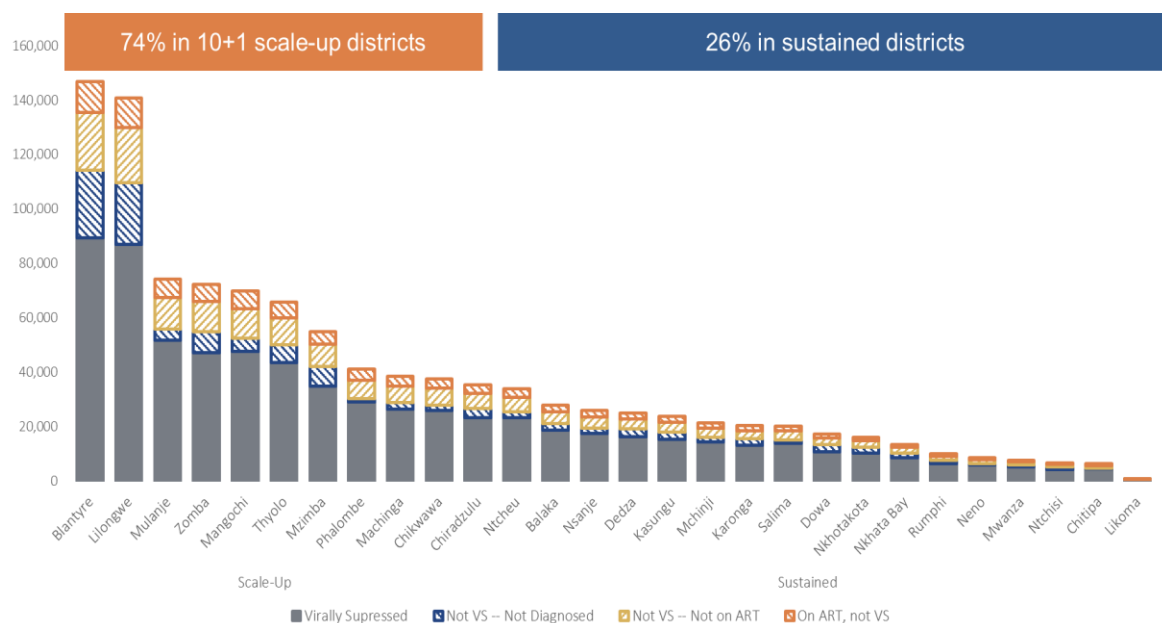
Data source: Eaton SAE

In COP19, PEPFAR Malawi will support the national HIV program in all 28 districts, while focusing the greatest share of its investment in the 10 districts where the majority of PLHIV reside and where the greatest gaps to 90% ART coverage remain (Figure 3.1.1). PEPFAR Malawi ensures a national reach in its support and investment in the HIV response throughout the country. This support includes increased investment where the HIV burden, particularly the gap to viral load suppression, is the highest with key interventions at all sites, including but not limited to: clinical mentoring to ensure quality programming and care; provision and funding of HIV staff (e.g., HDAs); sample transport for viral load tests; quarterly supportive supervision; electronic medical record systems and data monitoring; and technical support to the national and district level response at sites.

While the 10 scale-up districts remain unchanged, in COP19 PEPFAR Malawi plans to expand lessons learned from the initial 5.5 acceleration districts to the remaining 4.5 scale-up districts and to work more holistically across all 10 districts plus Chiradzulu. As highlighted in Figure 3.1.2, 74% of Malawians with unsuppressed viral load live in the 10+1 scale-up districts, indicating a need for continued acceleration in FY20.

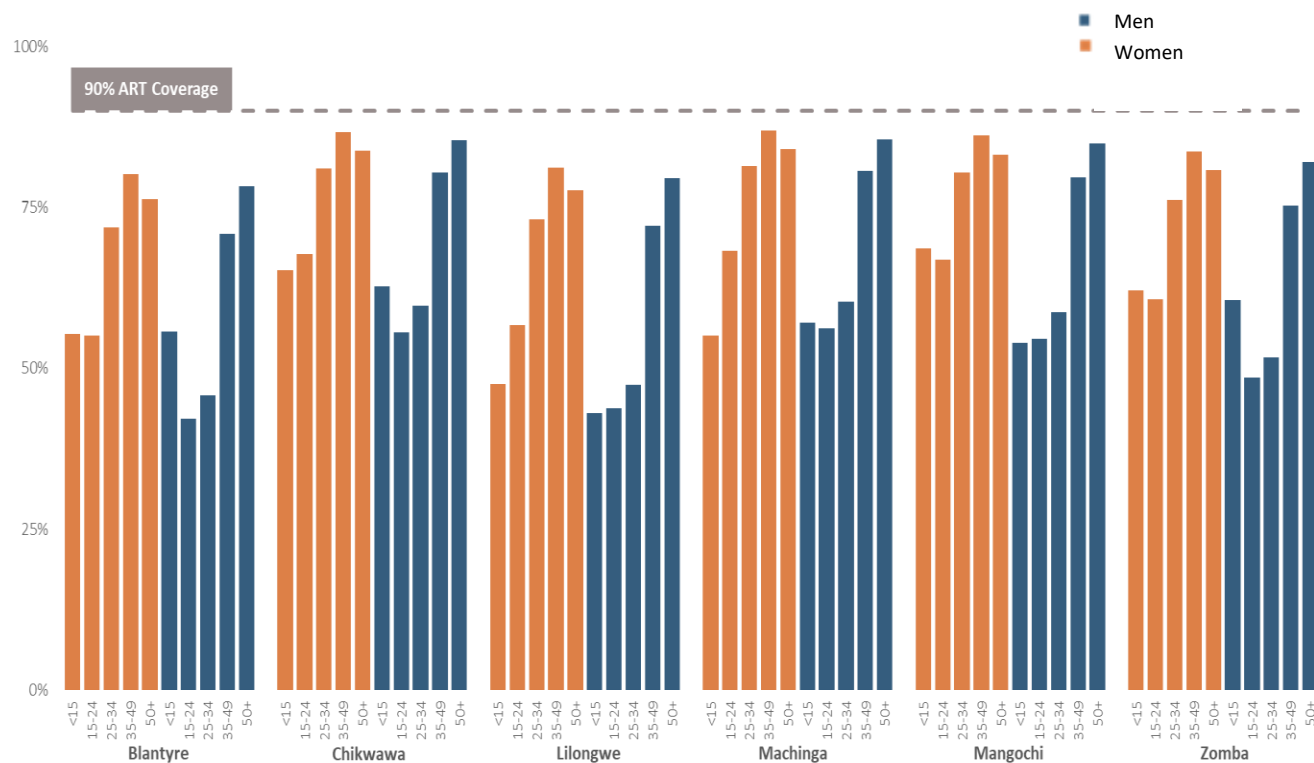


**Figure 3.1.2 PLHIV with Unsuppressed Viral Load by District - Focus on 10+1 Scale-Up Districts in FY20**



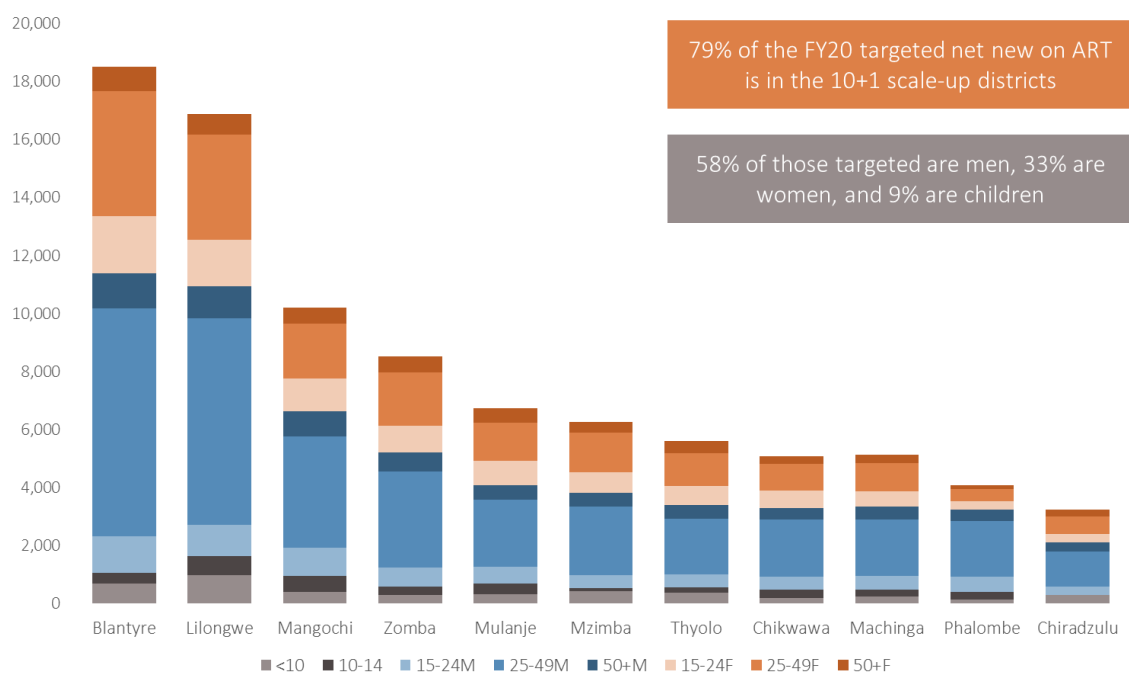
Data source: Spectrum 19 and Eaton SAE, End FY18

**Figure 3.1.3 Gap to 90% ART Coverage by Age and Sex in the 5.5 Acceleration Districts by end of FY18 - Focus Remains on Reaching Men and Youth**

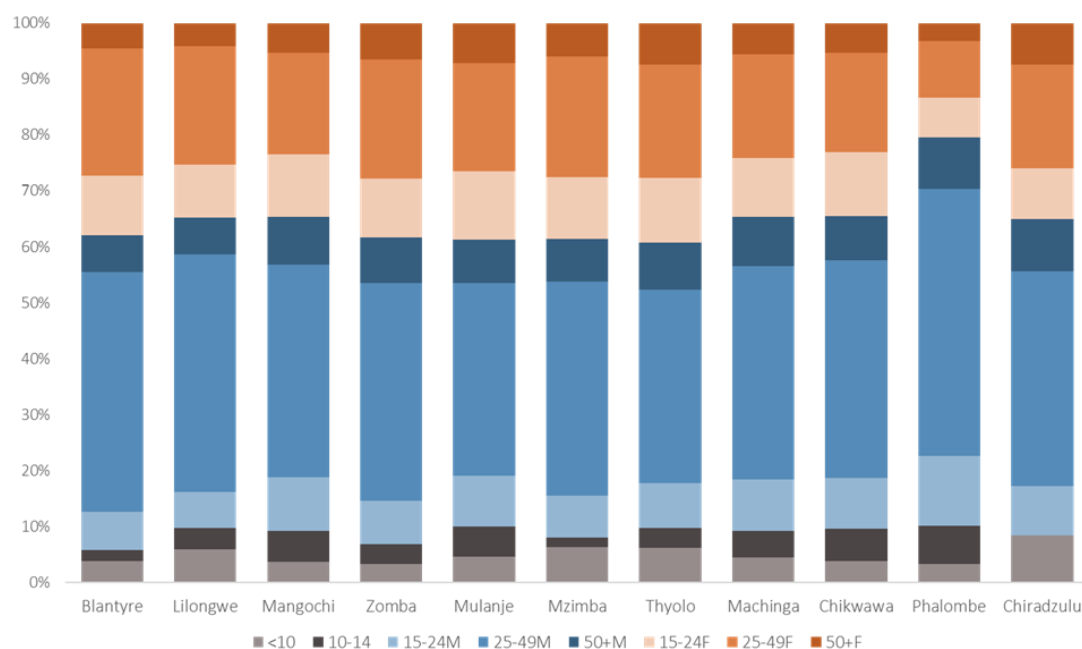


Data source: Spectrum 19 and Eaton SAE

**Figure 3.1.4 Net New on ART Targets for FY20 - Focus on Reaching Men in the 10+1 Scale-up Districts, Especially the Acceleration Districts of Blantyre, Lilongwe, Mangochi, and Zomba**



**Figure 3.1.5 New on Treatment Targets Disaggregated by Age and Sex and District for Entry into DATIM - Men Aged 25-49 are Key to Reach in FY20**






## 4.0 Program Activities for Epidemic Control in Scale-Up Locations and Populations

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### **4.1 Finding the Missing, Getting Them on Treatment, and Retaining Them**

The COP19 programmatic priorities will continue to focus on specific populations. To achieve the 90-90-90 goals at the national level across all populations, implementers will tailor interventions to age and sex groups (as demonstrated in figure 4.1.1), and replicate best practices and lessons learned from the 5.5 acceleration districts to 11 high burden districts. Implementers will also support MOH at site level to take key national policies to scale. These include active index testing, HIV self-testing, ARV optimization and annual viral load testing. PEPFAR will routinely assess data to monitor case identification, ART uptake, retention and viral load suppression, and track the effectiveness of interventions to address the gaps. Approximately a third of the 336,000 PLHIV not virally suppressed in Malawi are on ART. Poor adherence related with frequent treatment interruptions is an important factor behind the failure to suppress.

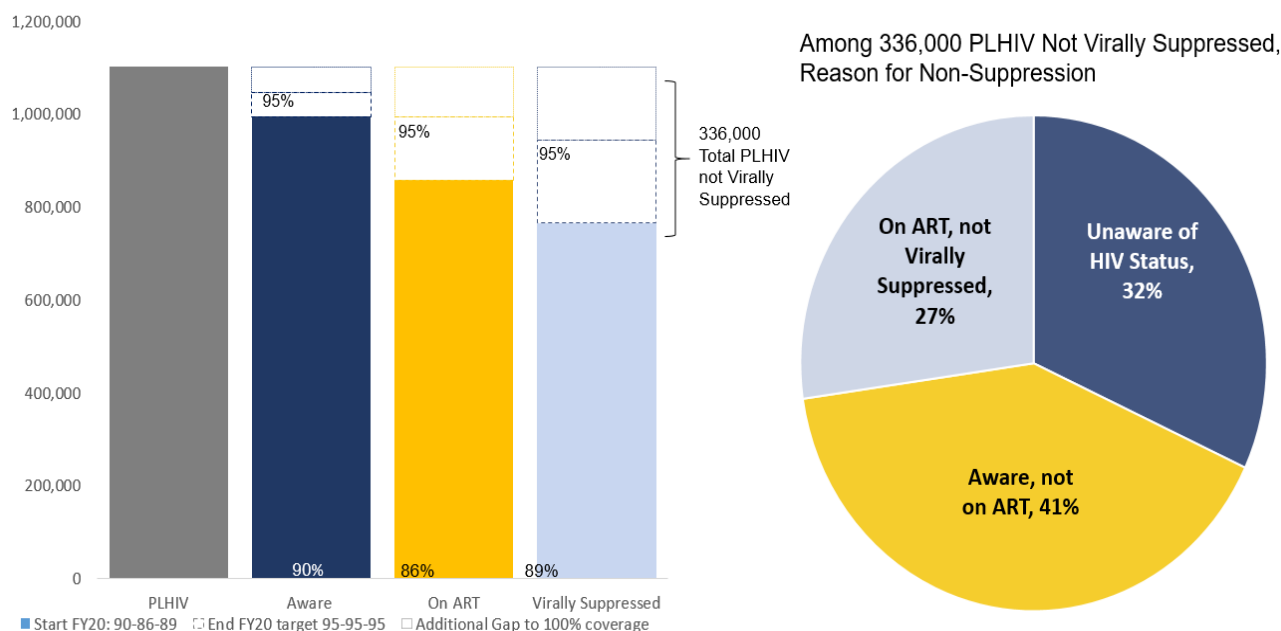
**Figure 4.1.1 PEPFAR Malawi Epidemic Control Plan for Acceleration Districts – March 2019**

|   |  |   |
|---|--|---|
| <br><b>Youth</b>     | <p><b>Females aged 15-24</b></p> <ul style="list-style-type: none"> <li>• Prevention: DREAMS (3 districts), PrEP, condoms, counselling</li> <li>• Targeted testing: PITC, active index testing, HIV self-testing, recency. Community index testing, youth-friendly services</li> <li>• Linkage and retention: peer navigators, AGYW clubs</li> </ul>           | <p><b>Males aged 15-24</b></p> <ul style="list-style-type: none"> <li>• Prevention: VMMC, condoms, counselling, PrEP (for high-risk, sero-discordant couples)</li> <li>• Targeted testing: PITC, active index testing, HIV self-testing recency community index testing; youth-friendly services</li> <li>• Linkage and retention: peer navigators, AGYW clubs</li> </ul> |
| <br><b>Adults</b>    | <p><b>Women aged 25-40</b></p> <ul style="list-style-type: none"> <li>• Prevention: Condoms, PMTCT, cervical cancer screening, PrEP (for high risk sero-discordant couples)</li> <li>• Targeted testing: PITC, active index testing, recency</li> <li>• Linkage and retention: peer navigators, AGYW clubs, community adherence clubs</li> </ul>               | <p><b>Men aged 25- 40</b></p> <ul style="list-style-type: none"> <li>• Prevention: condoms, VMMC (ages 15-29), counselling, PrEP for high-risk, sero-discordant couples</li> <li>• Targeted testing: PITC, HIV self-testing, active index testing, recency</li> <li>• Linkage and retention: male-friendly services, community adherence clubs</li> </ul>                 |
| <br><b>Children</b> | <p><b>Pediatrics and OVC</b></p> <ul style="list-style-type: none"> <li>• Prevention: GBV screening/services, OVC packages</li> <li>• Targeted testing : PITC, index testing (FSW), sexual network strategy, recency</li> <li>• Linkage and retention: peer navigators, youth clubs, HES</li> </ul>  |   |
| <p><b>Key Populations</b></p>   | <p><b>Key Populations:</b></p> <ul style="list-style-type: none"> <li>• Prevention: comprehensive packages, sexual violence and GBV prevention and support, PrEP</li> <li>• Targeted testing: PITC, drop-in centers, mobile (hotspots, informal settlements),recency linkage and retention: expert clients, community adherence clubs, back to care</li> </ul> |   |

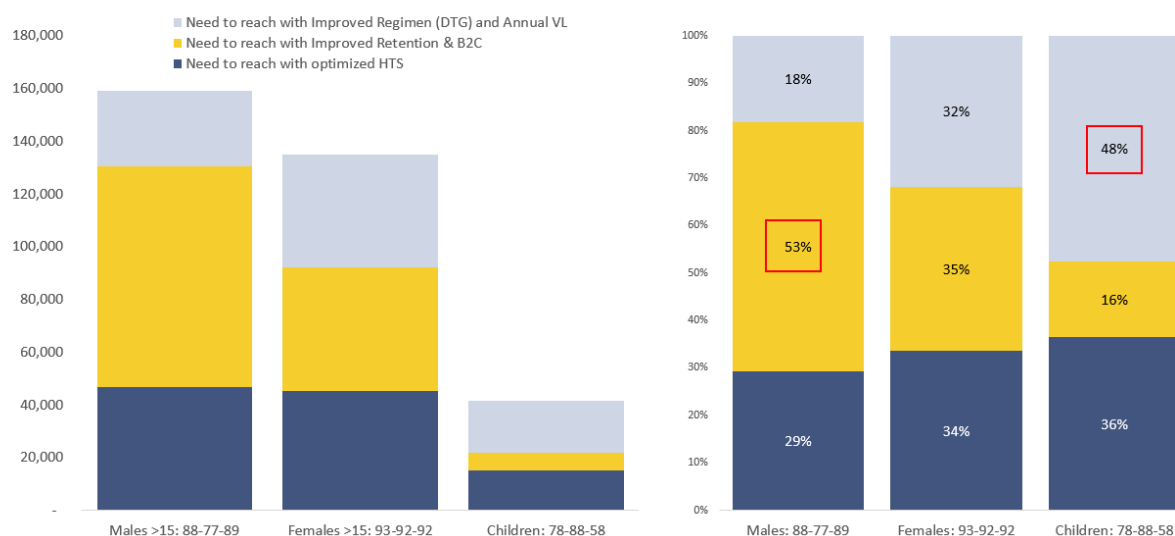
\*For all age-stratified gender groups, scale-up of back-to-care programs, annual viral load implementation, six-month pharmacy prescriptions for stable PLHIV on DTG-based regimens are planned.

\*\*PrEP will be targeted to high-risk AGYW, HIV negative partners in sero-discordant partnerships, MSM, and FSW as part of a comprehensive integrated program that is not stigmatizing.

**Figure 4.1.2 Reasons for Non-Suppression among PLHIV in Malawi Who are Not Virally Suppressed<sup>16</sup>**



**Figure 4.1.3 Reasons for Non-Suppression Vary by Age and Sex – Returning Adult Male Clients to Care; Ensuring Viral Suppression for Children are Emerging Priorities**

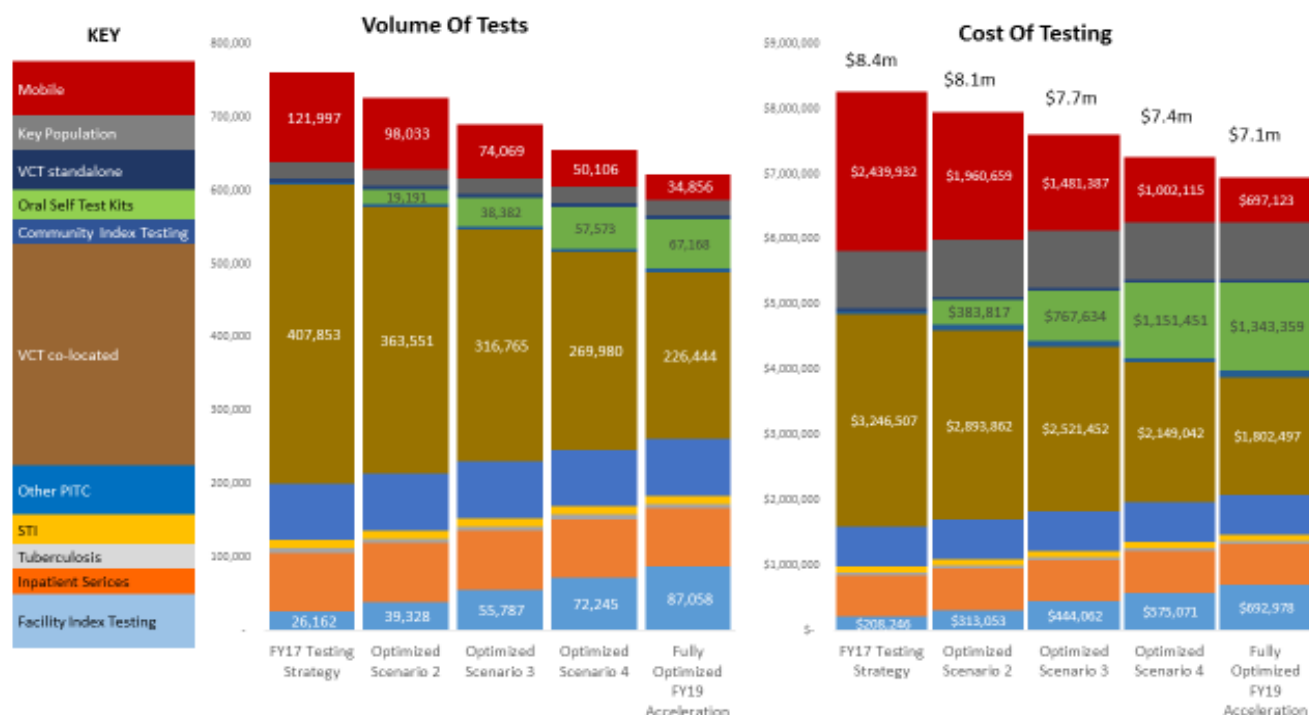


**HIV testing strategy optimization model:** In order to translate the above testing strategy into FY20 targets, PEPFAR Malawi developed a mathematical HIV testing strategy optimization model

<sup>16</sup> Total PLHIV in 2020 = 1,101,928 (from Planning Level Letter); 95-95-95 progress by September 2019 at 90-86-89: Spectrum Workshop Output, Johannesburg Feb 2019.

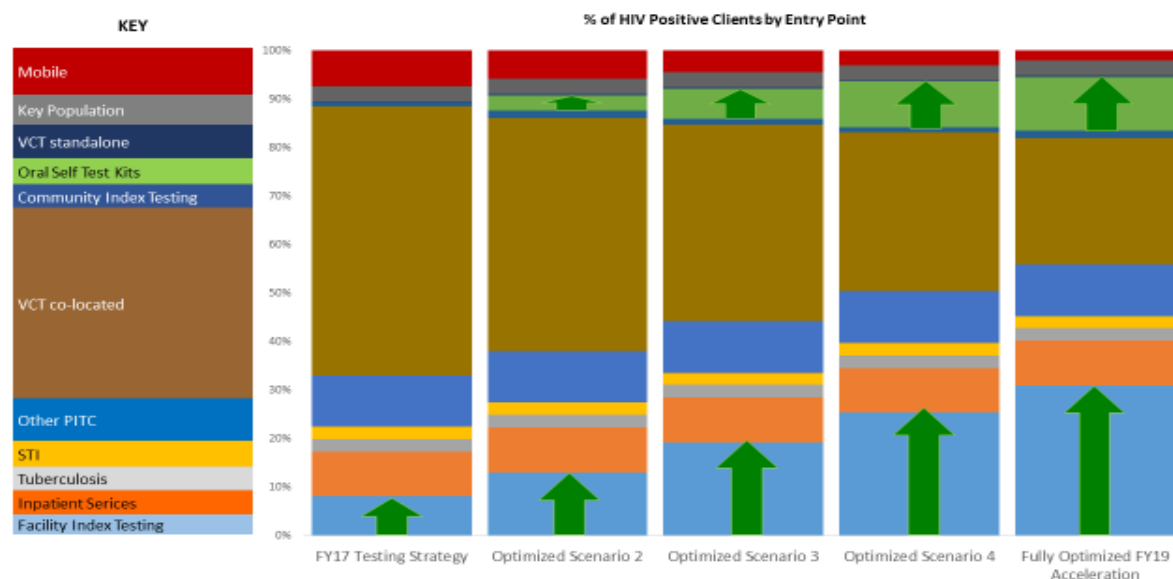
to achieve the optimal distribution of testing strategies that accelerate toward 95-95-95 targets. PEPFAR employed the model to set targets. These targets, by associated testing modality, will be reflected further in the implementer work plans. The figures below show model outputs for reaching men with testing services in the 10+1 scale-up districts. In all scenarios below, the number of positives identified meets the requirements for acceleration towards 95-95-95 targets among men. By scaling up high-yield efficient testing modalities such as index testing (light blue) and oral self-testing (green), making mobile testing even more targeted (red), and using validated screening tools in high-volume facility entry points (e.g., Out-Patient Departments) to decrease testing volume and increase yield, Malawi will realize program efficiencies in reaching 95-95-95 among men. Using the HIV testing strategy optimization model, PEPFAR Malawi examined various testing scenarios for COP18, as shown in Figure 4.1.4 below.

**Figure 4.1.4 An Example of Variation in Volume of Tests among Men by Testing Modality in the 5.5 Acceleration Districts to Achieve Declines in Volume and Cost of Testing while Still Accelerating towards 95-95-95**

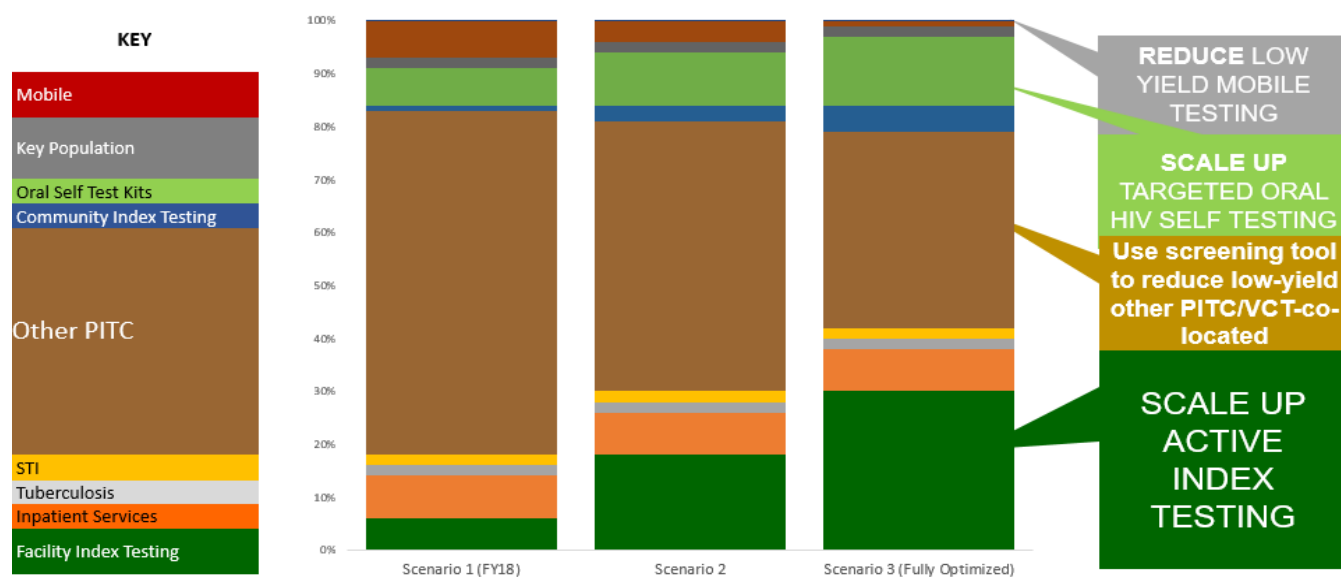


Increasing the volume of tests through index testing increases the percentage of positives identified through index testing to >30% in the acceleration districts (Figure 4.1.5). This testing model helped inform targeted testing volume for men by age group and entry point (Figure 4.1.6).

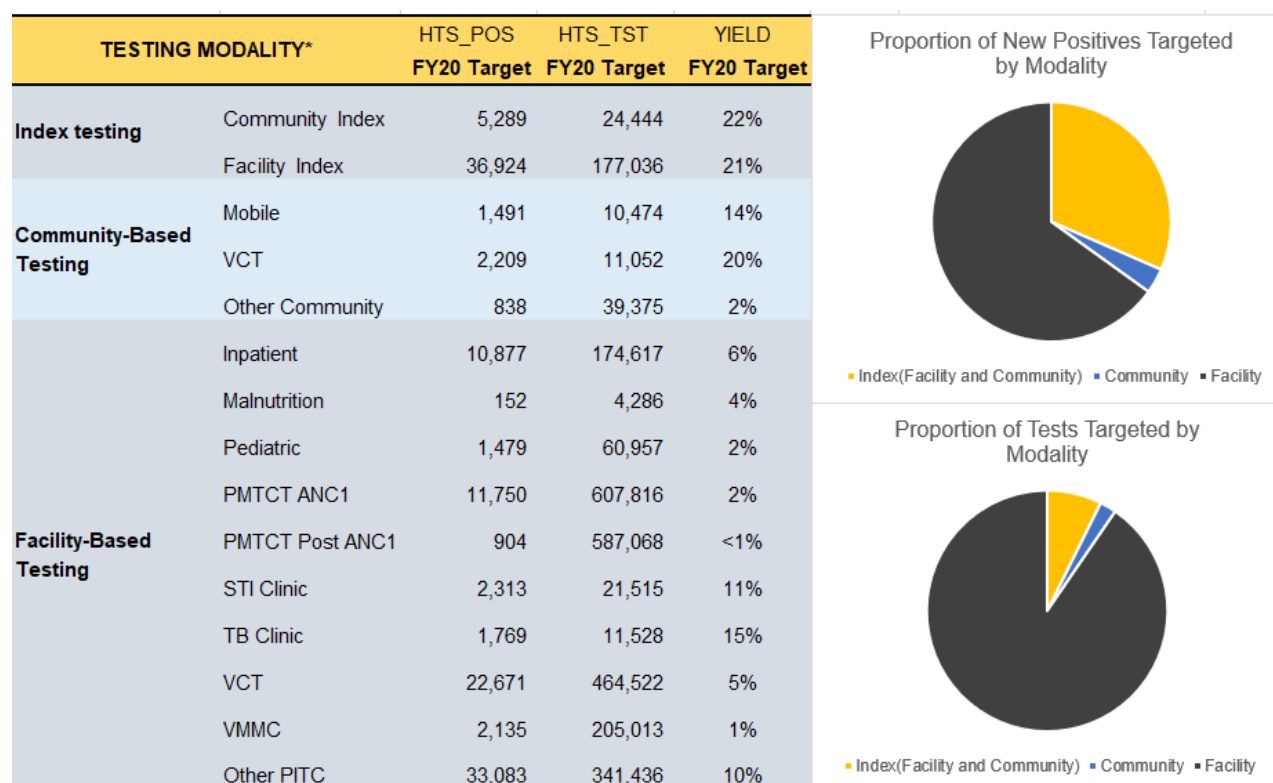
**Figure 4.1.5 FY19 Acceleration Districts Active Index Testing Targets: Accounting for 30% of all Positives, 14% of Tests, and 11% of the Testing Budget**



**Figure 4.1.6 FY19 Acceleration Districts Active Index Testing Targets: Accounting for 30% of all Positives, 14% of Tests, and 11% of the Testing Budget**

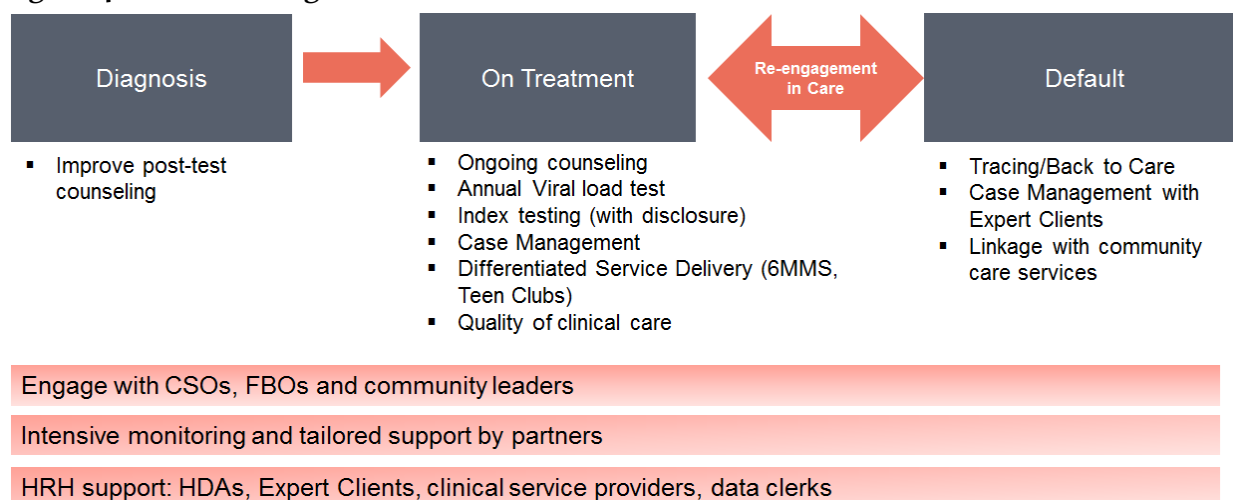


**Figure 4.1.7 Scale up Active Index Testing, Self-Testing, Screening Tool and Decrease Low Yield Mobile testing**



In COP19, PEPFAR Malawi will intensify efforts to retain PLHIV on treatment through a comprehensive approach across the “retention cascade” as shown in Figure 4.1.8 below. These interventions will aim to reduce missed appointments and loss to follow-up as well as bring those lost to follow-up back to care.

**Figure 4.1.8 Addressing Retention Barriers across the Entire Cascade**

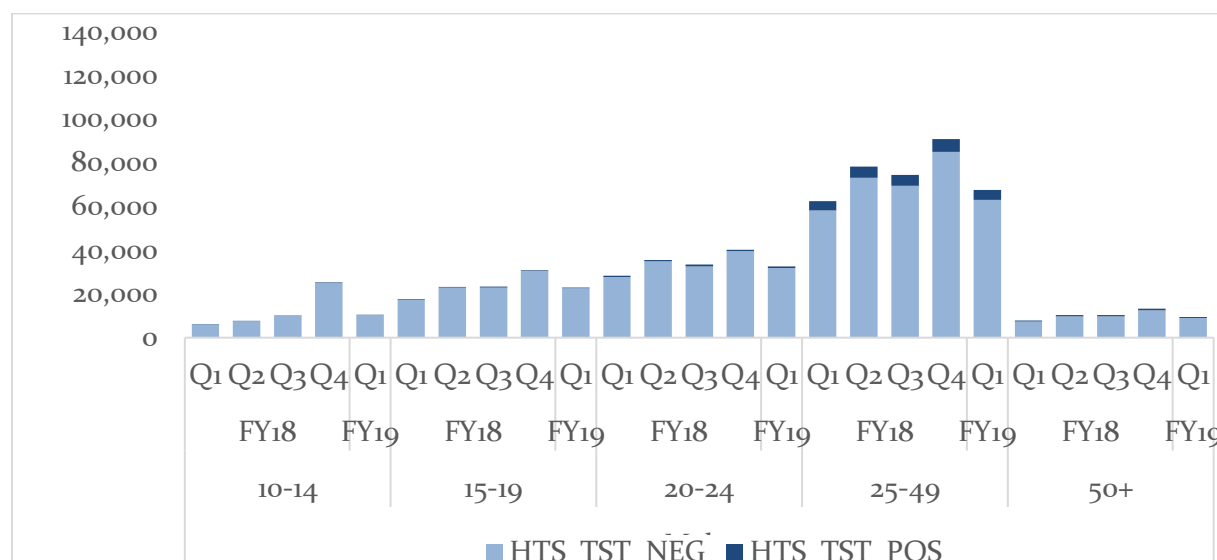




### 4.1.1 Men

PEPFAR is prioritizing the identification of undiagnosed men and subsequent treatment initiation as a key strategy to break the transmission of HIV and reduce HIV-associated morbidity and mortality. MPHIA indicates that men living with HIV in Malawi are less likely to be aware of their HIV status, on treatment, and virally suppressed<sup>17</sup>. Men are also more likely to die of AIDS-related causes. PEPFAR will implement four key HIV testing strategies in the scale-up districts where the greatest gap to saturation exists: (1) optimize use of validated screening tools in PITC settings, (2) scale-up of active index testing, (3) scale up oral HIV self-testing, and (4) highly targeted facility-linked outreach testing with a focus on community index testing. Men remain a critical target population for testing services in FY19. Program data indicates that more men are accessing index testing and HIV self-testing; preliminary FY19 Q2 data show that 40% of new ART enrollment is among adult males (>15 years old). The percentage of sexual contacts tested that are men varies across sites. In the sites that have been implementing the longest, this proportion is 61%. In other districts, PEPFAR Malawi observed that 53% of new positives identified through index testing are adult males. Data on HIV testing services (HTS) uptake in FY18 and Q1 of FY19 show that PEPFAR is reaching more men aged 25- 49 years (Figure 4.1.9). However, there is a declining HIV diagnostic yield in all districts. Implementers will conduct testing for men as part of a package of other services including PMTCT, VMMC, TB, and STI screening.

**Figure 4.1.9 Trends in HIV Testing Uptake in Men<sup>18</sup>**



**Optimized PITC:** Analyses of FY18 and FY19 in Q1 site-level data from facilities in the 10 scale-up districts shows that investments in HDAs to cover key facility entry points has increased HIV testing uptake. The routine offer of PITC will continue in the following settings as per retesting guidelines: ANC, STI clinics, TB clinics, in-patient, and malnutrition clinics. PEPFAR will implement site-by-site modifications to PLHIV flow and minor infrastructure changes (where necessary) to improve

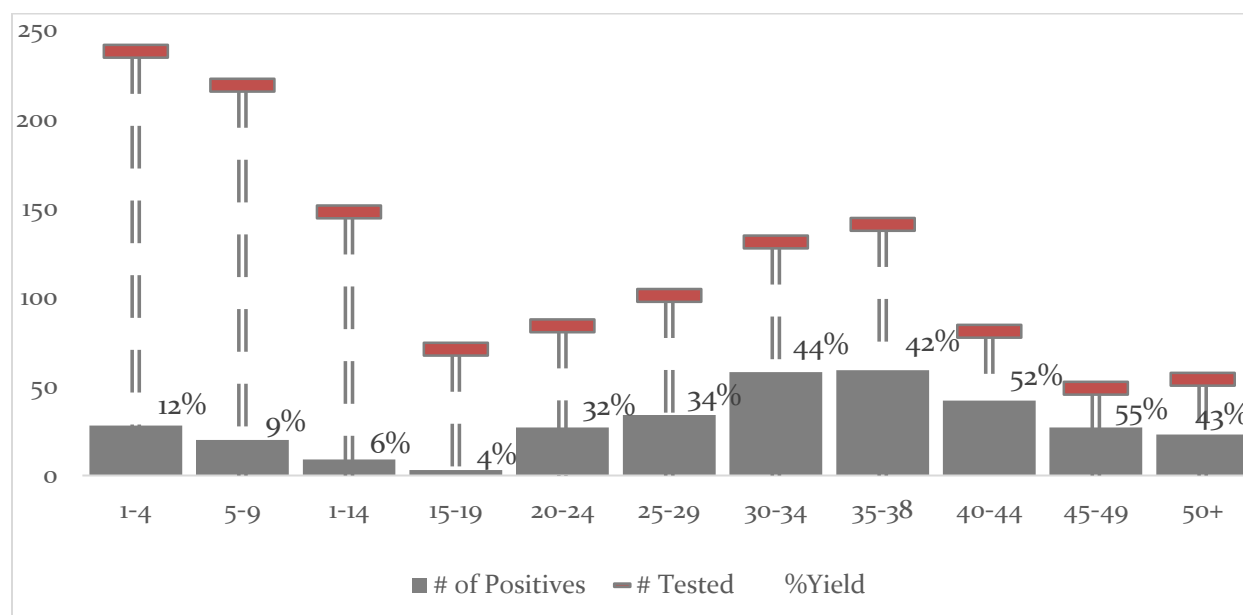
<sup>17</sup> MPHIA 2016

<sup>18</sup> DATIM data Genie using age sex/modality data from 6 districts

privacy and ensure adequate space for service delivery. Partners will increase the number of sites with male-friendly services in scale-up districts. These include extended service delivery hours and dedicated male clinic days. PEPFAR will optimize use of validated screening tools for HTS at key high-volume Out-Patient Departments (OPD) to address inefficient testing and improve yield. To achieve a higher coverage of men, PEPFAR implementers will refine facility-level testing strategies, conduct weekly site-level data reviews, and develop remediation plans to address issues noted. PEPFAR will work with implementers to tailor site-by-site, facility-level strategies for PITC optimization, including staffing-level determinations to facilitate the use of validated screening tools at high-volume OPD points in all scale-up districts. In addition, messaging is tailored to men to create demand, address concerns and misconceptions, and provide benefits of knowing their status and early treatment initiation.

**Scaling up Active Index Testing:** The Malawi MOH approved a policy to implement active index testing in December 2018. Prior to the policy endorsement, preliminary study findings on active index testing demonstrated high HIV positivity rates exceeding 30% in men aged 20 years and older. The experience in the study sites will inform the revision of the National HTS guidelines, the development of an index testing training module, and quality assurance tools. PEPFAR developed an active index testing scale-up plan in consultation with MOH leadership in COP18 and that plan will include further expansion for COP19. In COP18, PEPFAR will scale up active index testing in all sites in the 10+1 scale-up districts. PEPFAR implementers continue to develop site-specific plans for the rollout of active index testing interventions. PEPFAR projects that index testing will contribute to >30% of newly identified PLHIV in FY20 with variations of proportions across districts based on gaps to saturation.

**Figure 4.1.10 Positivity Rates by Age Group for Men in Active Index Testing Study Sites<sup>19</sup>**



**Scaling up Oral HIV Self-Testing:** In line with WHO HIV self-testing (HIVST) recommendations, data from Malawi demonstrate that HIVST is a promising approach to reach and screen populations, particularly men, who may not access other HTS strategies<sup>20</sup>. Malawi adopted HIVST as a policy in FY18 Q3 and implementation by PEPFAR partners started in FY19 Q1 at both community and facility settings. Implementation of HIVST in Blantyre district by PEPFAR partners contributed to reducing testing volume and accelerating case finding during the FY19 Q1 reporting period. In COP18, PEPFAR developed a rollout plan, and has included further expansion in COP19 in the 10+1 scale-up districts.

Data from the UNITAID STAR project in Malawi showed the HIV Self Testing administered in high HIV prevalence, informal settlements in Blantyre had high yield and reach among men and youth (Choko et al, 2015 Plos Med). In Phase II of STAR, door-to-door testing was discontinued in favor of other community-based distribution models at the request of the MOH. HIV Self Testing targeting men and youth in the high burden and densely populated informal settlements in Blantyre became a key part of the program to promote HIV testing among these groups not entering health facilities. PEPFAR will continue targeting select, high-HIV burden informal settlements and work places targeting men and youths –like bars, market places, and other places where men and youth are found - throughout the 10+1 scale up districts for the facility linked self-testing outreach. Then, recency results will be used to look at clusters of new infections to inform a response at the community-level with local and faith leaders. Further, through the Faith Initiative, we will be able

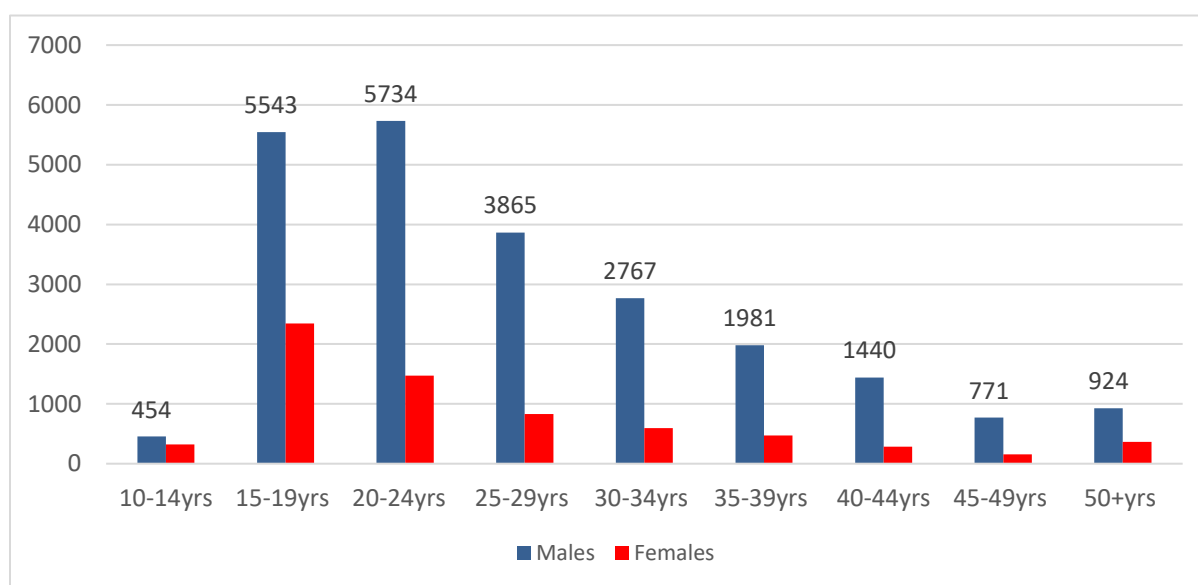
<sup>19</sup> Preliminary VAPN study report, May 2018 to Jan 2019

<sup>20</sup> Choko et al. (2015) Uptake, Accuracy, Safety, and Linkage into Care over Two Years of Promoting Annual Self Testing for HIV in Blantyre, Malawi: A Community-Based Prospective Study. PLoS Med 12 (9).

to increase engagement of local and faith leaders to promote index testing and HIVST for men and youth living in Blantyre.

In addition to the HIVST community distribution, the MOH HIVST guidelines recommend integration of oral self-testing into index testing approaches and clients refusing PITC at the facility level. PEPFAR is collaborating with MOH to roll out HIVST and to implement robust monitoring and evaluation strategies to monitor the effectiveness of self-testing approaches. A key aspect of the HIVST roll out is educating clients that a positive screen test does not provide a definitive diagnosis and that an individual with a reactive self-test will need to undergo HTS using the national HTS algorithm. Similarly, health education at health facilities and community distribution points emphasizes that the interpretation of a negative screen depends on the recent or ongoing risk of HIV exposure. Those screening positive are encouraged to report to their nearest facility for confirmatory test and linkage to care. Those screening HIV negative are advised to access HIV prevention interventions such as VMMC and condom use.

**Figure 4.1.11 Uptake of HIV Self testing**



**Targeted community testing approaches to reach men:** COP19 will continue to implement targeted mobile testing to reach men who have sex with men (MSM), including male sex workers, and clients of female sex workers (FSW) in geographic hotspots and occupational groups with higher HIV prevalence (e.g., men employed at tea, sugar, and rubber estates; truck drivers; in fishing communities; police; and schoolteachers). PEPFAR will strengthen partnerships with faith-based organizations (FBOs) and traditional authorities to address gender norms and beliefs that act as a barrier to the uptake of index testing and linkage to ART. Implementing partners will monitor program and costing data to verify if facility-linked outreach testing approaches require refinement to achieve high yield in COP18 for wider scale up in COP19. Peer-focused approaches (e.g., peer educators, peer navigators, and male champions) will increase reach. COP19 activities will build on

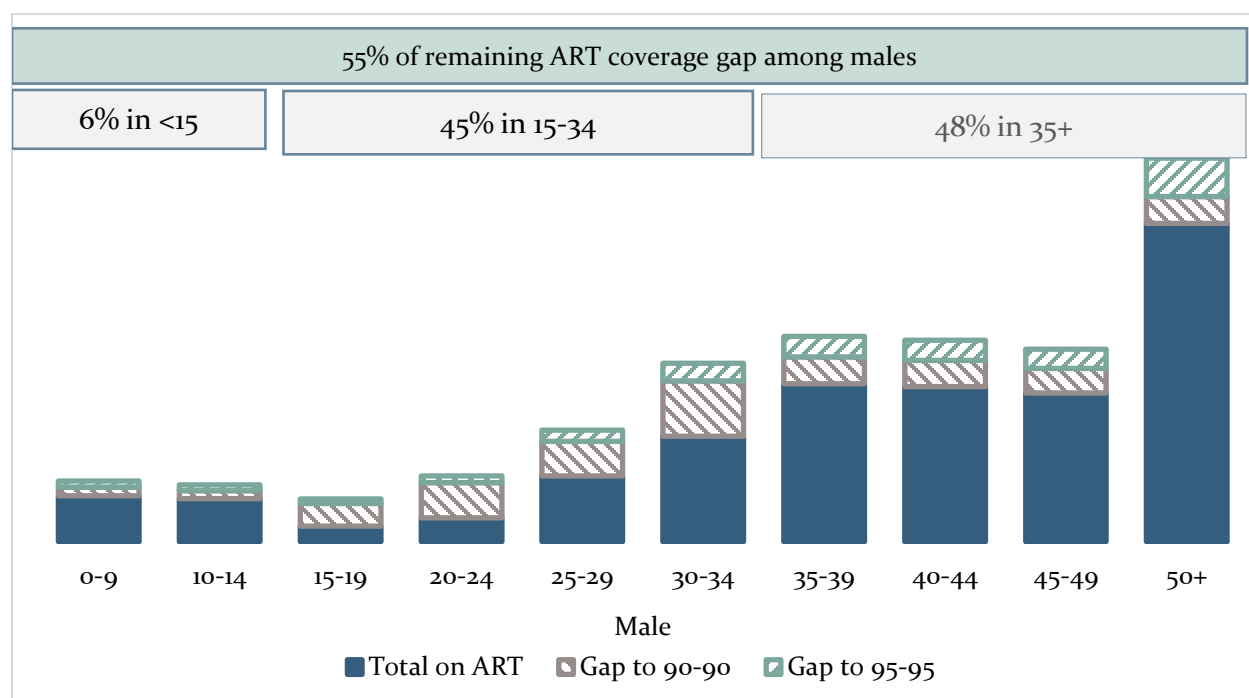
existing approaches, including weekly data analysis and monitoring performance of each approach for strategy refinement in the 10+1 scale-up districts.

**Military Testing:** PEPFAR will strengthen HIV testing in military settings for soldiers and sexual contacts, as well as focused pre- and post-deployment packages to facilitate testing and linkage into care for those testing positive.

**HIV testing strategy optimization model:** To translate the above testing strategy into FY20 targets, PEPFAR Malawi developed a mathematical HIV testing strategy optimization model to achieve the optimal distribution of testing strategies that accelerate towards 95-95-95 targets. PEPFAR employed the model to set targets and implementing partners will use the projected contribution of various HIV testing modalities to guide the COP19 work plan development.

**Finding Men Early:** Male engagement in HIV prevention and treatment programs is sub-optimal. The estimated ART coverage gap among men aged 30-34 years is 55% and they have the greatest gap (see Figure 4.1.12 below). PEPFAR is supporting the MOH to scale up strategic testing approaches to identify men who do not know their status. Implementing partners have conducted analyses to determine which PLHIV present late with advanced stages of HIV. Identifying PLHIV at an earlier stage of HIV ensures better treatment outcomes and reduces the risk of HIV transmission. PEPFAR will continue to support strategies to increase awareness and demand for services especially among men. PEPFAR will also scale approaches such as weekend testing and differentiated clinics, to address barriers often encountered by men and youth.

**Figure 4.1.12 Gap in ART Coverage for Men in Malawi<sup>21</sup>**



**Linkage to Treatment:** Available data from Malawi and the region emphasizes the importance of linking each newly diagnosed HIV positive male to an Expert Client or similar linkage expert to facilitate early HIV treatment, including same day ART initiation for consenting clients. PEPFAR IPs will develop tailored interventions for specific PLHIV groups that have lower linkage rates, e.g. adolescent boys. Additionally, implementing partners will engage faith-based organizations and other community-based organizations (CBOs) that have established and more trusted relationships with men to promote testing, linkage, and same day ART initiation through effective messaging.

**Treatment Coverage:** A review of ART coverage by age and sex for priority districts at the end of FY18 showed a small overall gap in ART coverage; however, there is variability across age groups with the lowest coverage found in men aged 15-24 years. The transition to Dolutegravir (DTG)-based regimens will improve adherence and retention rates on ART given DTGs increased effectiveness with less side effects. PEPFAR IPs will continue to implement interventions that are more male-friendly with fidelity. These include male-friendly differentiated service delivery models, including extended hours, weekend clinics, multi-month prescriptions, targeted individual and peer group support, expanded alternative service delivery models, and active defaulter tracing. PEPFAR will also monitor strategies to improve linkage rates and retention over time (see Figures 4.1.14 and 4.1.15 below) using weekly, monthly, and quarterly program data to refine and adjust interventions.

<sup>21</sup> Eaton district-level PLHIV and ART estimates, COP planning level total PLHIV

**Differentiated Service Delivery Models:** In COP19, PEPFAR implementing partners will continue to scale up the differentiated service delivery (DSD) model for stable PLHIV. Six-month prescribing and dispensing of ART is expected to have the greatest impact in decongesting high-volume ART clinics. The reduction in the frequency of clinical visits reduces opportunity costs for PLHIV on ART. This is also impactful for communities located in remote areas where distances present barriers to accessing services. In alignment with MOH and DHA guidelines, PEPFAR will continue to deploy frontline ART providers, such as community HIV nurses, to provide ART in community settings, through programs like the facility-linked, nurse-initiated community ART approach. Expert clients and psychosocial counsellors will also support PLHIV enrolled in adherence clubs and support groups, which will be entry points for scaling up DSD. Implementing partners will scale up active defaulter tracing to additional sites in scale-up districts to improve retention rates and ensure adequate monitoring of PLHIV who are enrolled in DSD models.

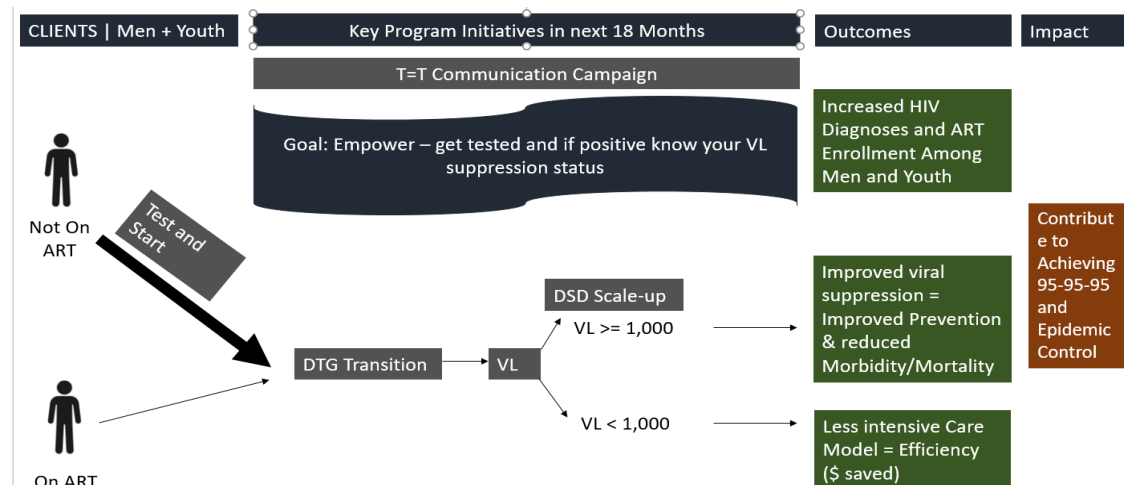
**Treatment for Late Presenters:** National program data shows that approximately 16% of new ART clients start treatment either in WHO stage three or four<sup>22</sup>. PLHIV with advanced HIV have a higher likelihood of opportunistic infections and early mortality, especially due to TB co-infection. In COP19, PEPFAR Malawi will support the implementation of the national guidelines to conduct urine-LAM and cryptococcal antigen screening in districts and central hospitals (currently not available universally) to PLHIV with advanced HIV (i.e., CD4 < 200, WHO Stage III/IV, “seriously ill” PLHIV). In smaller health centers, access to these services will depend on a functional referral system to district hospitals and other referral facilities that have the required diagnostic and treatment capacities. Implementation of proven retention and adherence strategies (e.g., active defaulter tracing and adherence support through lay providers such as Expert Clients) will be key to reduce the number of PLHIV on ART failing on treatment. This model will include a case management component for active follow-up.

**Viral Load Monitoring:** Annual viral load testing and the T=T strategy (Tizirombo Tochepe=Thanzi or less virus equals more health) will be critical to improving treatment outcomes and will contribute to achieving epidemic control, as depicted in Figure 4.1.13 below. This figure reflects the power of the DTG transition to a better, more effective drug leading to viral load suppression where people can live long and health lives with virtually no risk of onward HIV transmission to sexual partners. The more people that understand these benefits, the more likely they are to want to know their status or re-engage in care to utilize the new, more powerful drug. PEPFAR renews our commitment toward the national T=T campaign and will leverage the networks of faith-based organizations and community-based organizations to increase awareness of the T=T strategy.

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<sup>22</sup> MOH April-June 2018 Quarterly Report

**Figure 4.1.13 Tizirombo Tochepe= Thanzi Strategy (T=T)<sup>23</sup>**



**Geographically focused Investments for Men:** The below figures summarize how these approaches will be geographically targeted to improve program efficiencies.

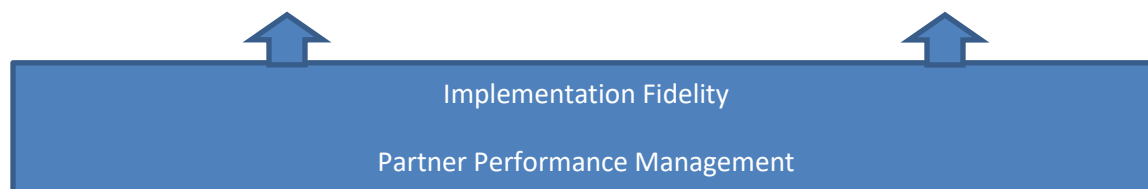
**Figure 4.1.14 Intervention Package for Adolescent boys and Young Men**

#### Acceleration Districts Scale-up Districts

- VAPN
- Optimized PITC: screening tools
- HIV self-testing
- Recency
- Peer support (including teen clubs)
- Viral load audits
- Optimized VL cascade
- Intensified mentoring, in-service training
- Advanced HIV case management

#### Scale-up Districts

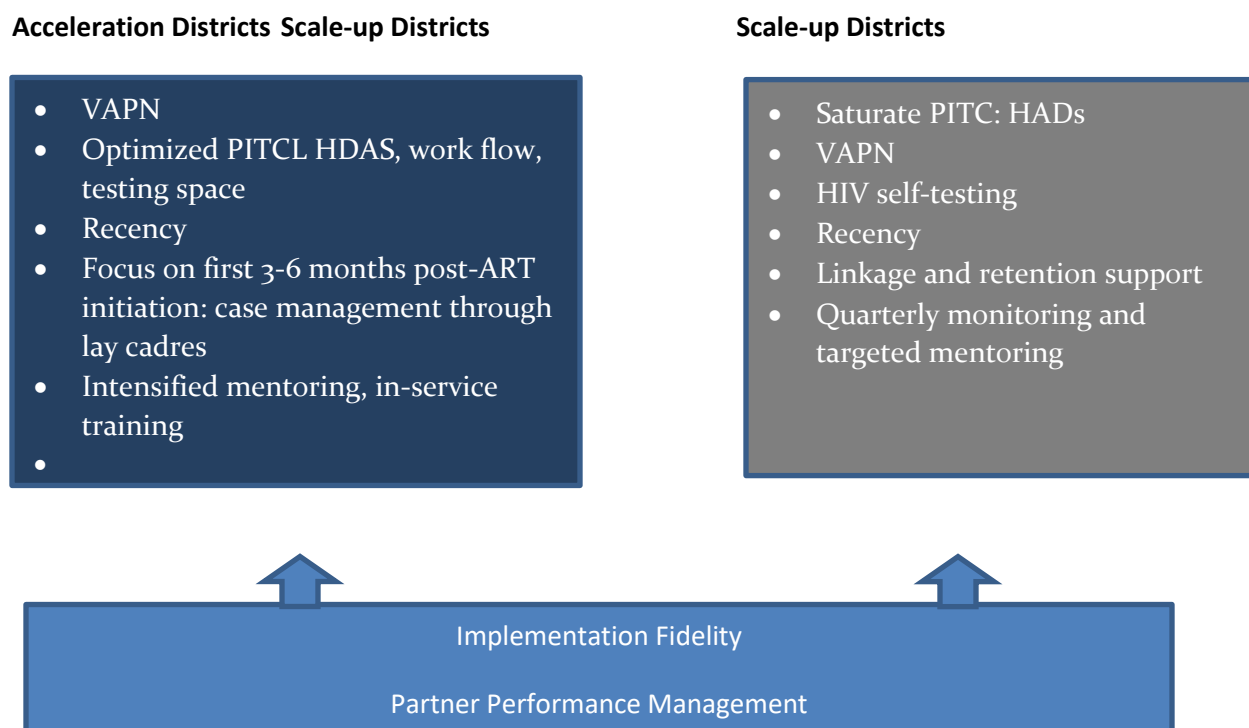
- VAPN
- Optimized PITC: screening tools
- HIV self-testing
- Recency
- Linkage and retention support
- Quarterly monitoring with targeted mentoring
- Advanced HIV case management



<sup>23</sup> T=T is roughly translated as “Less Virus = Better Health”



**Figure 4.1.15 Intervention Package for Men**



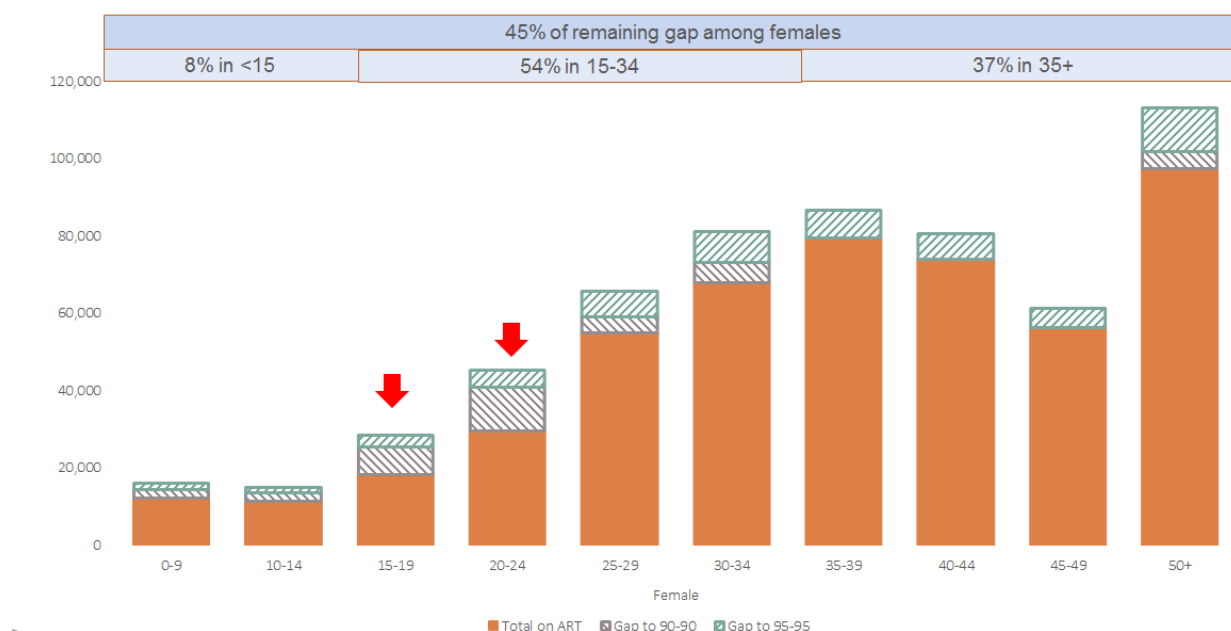
**Primary Prevention:** In accordance with the GOM-recommended prevention package, PEPFAR implementers will refer men who test HIV negative to post-test counselling prevention services (e.g., condoms, information, and education) and to VMMC services (especially those aged 15-29 years). PEPFAR-supported male champions and peer outreach initiatives in scale-up districts will provide risk reduction counseling, in addition to small group information and behavior change sessions targeting high-risk, age-segregated male populations. PEPFAR will continue to engage community leaders, male gatekeepers, and role models to strengthen positive gender norms and implement gender-based violence (GBV) prevention and behavioral change interventions to increase service uptake and condom use.

#### 4.1.2 Women

According to the MPHIA, women over age 15 are progressing better towards the 90-90-90 goals than men over age 15, and are on track to reach the 95-95-95 goals. However, the success observed among adult women is not uniformly reflected across all finer age categories (see Figure 4.1.16). AGYW aged 15-24 years lag behind in terms of case identification, linkage to treatment, and viral suppression (49.8% were aware of their status, 82.5% of those aware reported being on ART, and 78.8% of those reporting being on ART were virally suppressed)<sup>24</sup>.

<sup>24</sup> MPHIA 2016

**Figure 4.1.16 Greatest Gaps to 90% ART Coverage among Women aged 15-24 (FY18 End)**

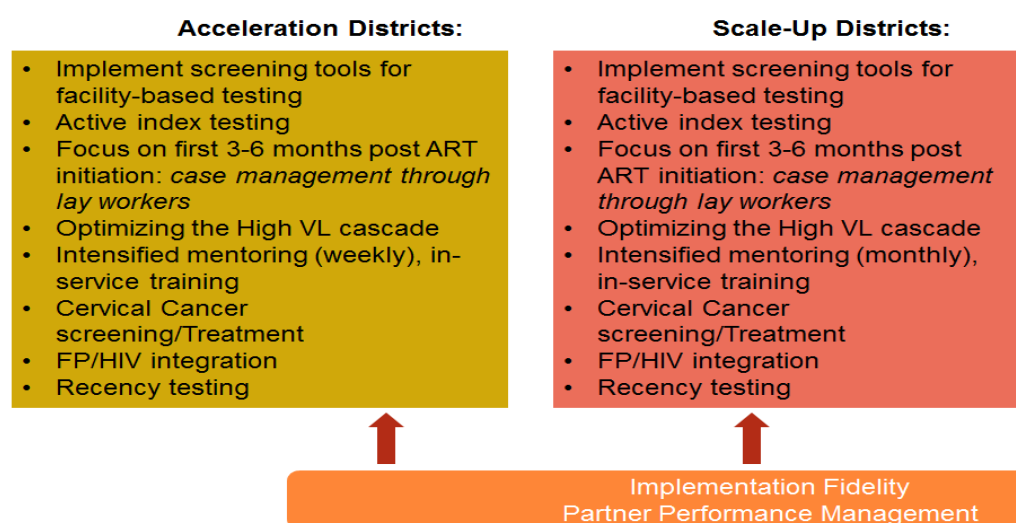


Malawi's success in the implementation of option B+ programs beginning in 2011 remains a cornerstone of the progress toward epidemic control among women. However, there are still opportunities to further optimize the treatment cascade among HIV positive pregnant women. For example, 23% of HIV positive prevention of mother-to-child transmission (PMTCT) clients who initiated treatment are lost to follow-up in the first six months post-ART initiation<sup>25</sup>. The drop-off in the first six months is higher than any loss in the subsequent 30 months. PMTCT implementation fidelity remains a priority to reach women 25 years and over.

In FY19, the GOM adopted several changes to the national HIV program that PEPFAR expects to help steer Malawi closer to epidemic control. Those changes include: MOH adoption and roll out of a plan to switch from TLE (tenofovir, lamivudine, efavirenz) to TLD (tenofovir, lamivudine, dolutegravir) for the first line regimen; approval to implement Voluntary Assisted Partner Notification (VAPN); PrEP; and, self-testing in all districts.

<sup>25</sup> MOH Quarterly Report: April-June 2018

**Figure 4.1.17 Intervention Package for Women 25+**



**Cervical Cancer:** Cervical cancer is the number one cancer killer of women in sub-Saharan Africa. Women living with HIV (WLHIV) are four to five times more likely to develop persistent precancerous lesions and progress to cervical cancer, often in more aggressive forms and with higher mortality<sup>26</sup>. In FY19, PEPFAR Malawi started supporting screening and treatment services for pre-cancerous lesions for WLHIV in 39 high-volume ART facilities. PEPFAR's investments were complemented by Global Fund resources for procurement of key equipment and supplies.

In COP19, PEPFAR Malawi will intensify its cervical cancer interventions and aims to reach 101,507 WLHIV with screening services. In addition to treatment of pre-cancerous lesions, PEPFAR partners will also establish referral network-to-district and referral hospitals where specialized care is available for PLHIV with advanced stages of cervical cancer. Women who receive treatment for pre-cancerous lesions will be counseled and given appointments for follow-up screenings, based on the national guidelines.

**Adolescent Girls and Young Women Case Finding:** In COP19, PEPFAR Malawi will prioritize a further scale-up of active index testing with fidelity to reach AGYW at higher risk of HIV acquisition. HIV Diagnostic Assistants and Expert Clients will receive intensive mentorship and supervision to improve outputs along the index testing cascade (e.g., index testing acceptance, partner elicitation, and testing). PEPFAR will collaborate with MOH to ensure adverse event monitoring systems are established and operational as part of the partner notification services.

PITC will remain a key approach to case finding among AGYW. Family planning and ANC clinics offer an excellent opportunity to reach AGYW with HTS services. In COP19, PEPFAR will introduce screening and risk assessment tools in OPD and family planning clinics to reduce over-testing and improve the overall efficiency of the HTS program. PEPFAR, through its implementers will make HIV testing services available during the weekend or before and after regular clinic hours to

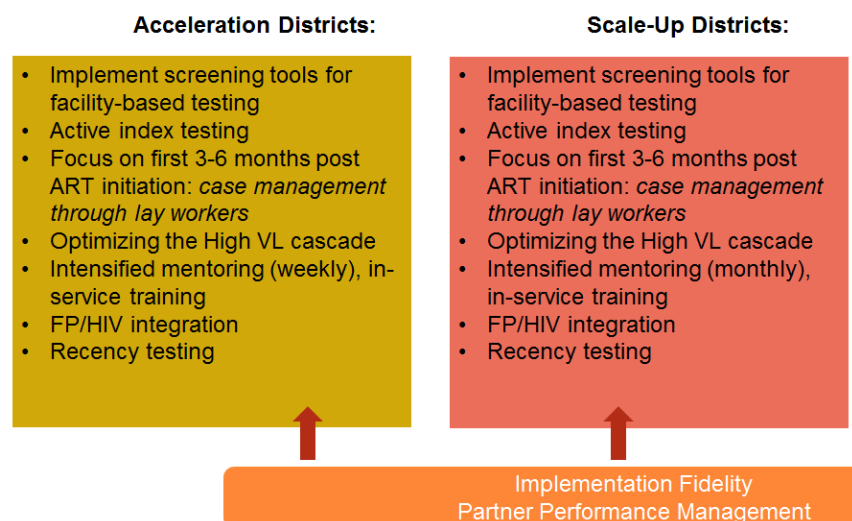
<sup>26</sup> COP19 guidance

encourage HTS uptake by school-going and/or employed AGYW. PEPFAR will train and mentor HTS providers on youth-friendly service delivery and establish dedicated youth-friendly clinics in high-volume facilities where health care workers will deliver integrated HTS and care and treatment services.

In COP19, expansion of HIVST beyond the 5.5 acceleration districts will complement other HTS strategies and to increase case finding, especially among AGYW engaged in sex work. Similarly, community testing efforts targeting female sex workers and as part of a broader index testing strategy will be an important part of PEPFAR Malawi's COP19 strategy to find HIV positive AGYW.

**Scaling up Recency Testing to Inform Targeted HIV Testing:** As Malawi approaches universal coverage of HIV treatment and viral suppression of PLHIV, indicators of ongoing transmission and incidence are increasingly important to understand the HIV epidemic and national response. During the COP19 Meeting in Johannesburg, the Government of Malawi approved the implementation of recency surveillance nation-wide. Malawi's pilot results showed that 11.7% of newly diagnosed AGYW were recently infected. In COP19, implementers and the PEPFAR team will conduct routine data analysis to monitor trends in the number and proportion testing recent, and identify geographic areas and sub-populations associated with testing recent to inform HIV programming. PEPFAR will rollout national recency testing in COP19 with a target of 85,047 tests at selected sites, representing 80% of new HIV diagnoses nationally. Implementation of the recency surveillance will commence in FY19 Q3 in a phased manner, up to 253 sites by FY20 Q1. The recency surveillance will provide real-time data, address challenges of sample size for sub-populations, identify areas of ongoing transmission where new infections are occurring, efficiently target interventions for those at the highest risk of acquiring or transmitting HIV, monitor impact, and inform scale-up of targeted interventions (e.g., VAPN, HIVST, AGYW, and educational programming).

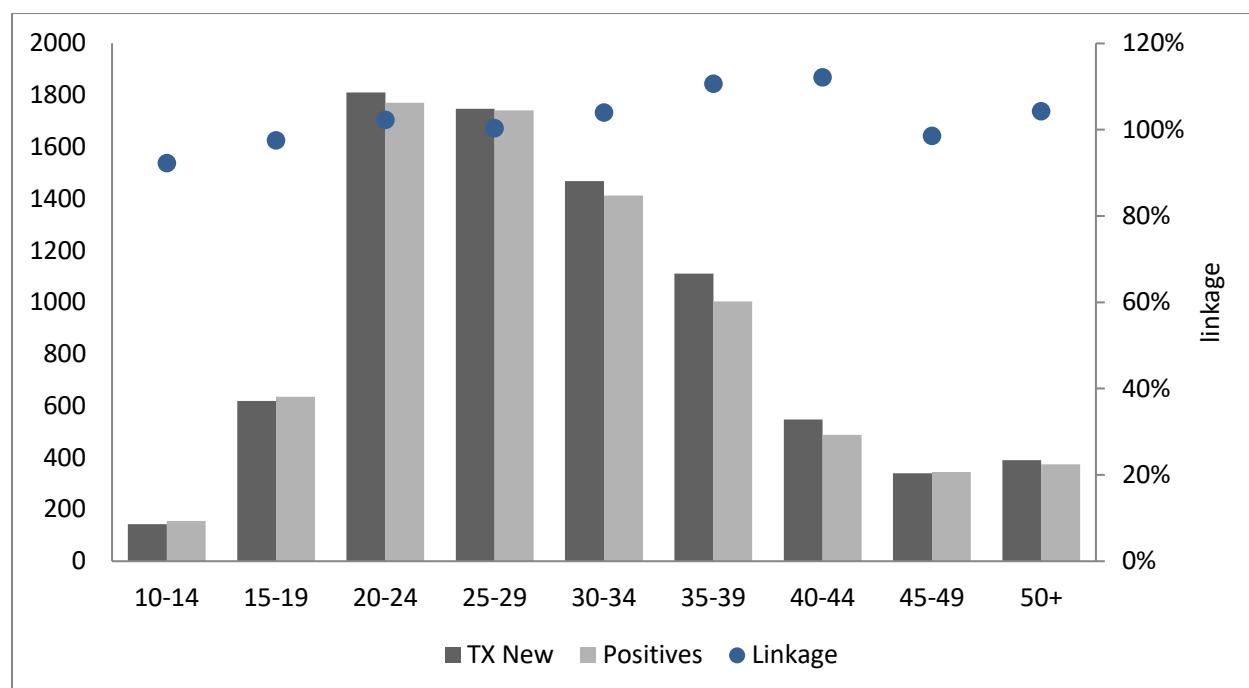
**Figure 4.1.18 COP19 Differentiated Approach for AGYW Clinical Cascade**



**AGYW Treatment:** Linkage to ART among AGYW is high and comparable to women over 25 years of age (Figure 4.1.19). PEPFAR has contributed to this achievement through the implementation of linkage standard operating procedures (SOPs), deploying linkage navigators, and supporting availability of same-day ART initiation. To sustain this achievement and improve further, PEPFAR Malawi will:

- Undertake regular district and site-level analyses and implement tailored interventions. Quality improvement approaches will be integral to efforts to improve performance. Best practices from top performing sites will be applied to sites that need improvement;
- Ensure peer support for newly diagnosed AGYW and their male peers through expert clients, and community health workers (when/if expert clients are unavailable);
- Implement youth-friendly clinics in high-volume facilities where integrated HTS and care and treatment services will be delivered. PEPFAR partners will engage AGYW in the design and implementation of these clinics;
- Ensure availability of daily ART initiation services by addressing site-level barriers, such as shortage of HRH and infrastructure limitations;
- Support implementation fidelity of the ART referral register and maintain deployment of lay cadres (e.g., expert clients) who will trace, counsel, and re-engage unlinked PLHIV; and,
- Implement the teen support line – a toll-free line for both providers and clients to access for advice and counseling on HIV-related clinical and general questions.

**Figure 4.1.19 Strong Linkage Performance among all Age Groups in Women – on Track to Reach Goal of 95% Linkage (PEPFAR FY19 Q1 Report)**



PEPFAR will also support the transition to optimized ART regimen (especially TLD). While the focus will be to identify and treat AGYW early, PEPFAR will also assist district and referral hospitals to roll out differentiated models for late presenters and those not responding to treatment.

PEPFAR will work with U.S. Government and non-U.S. Government funded family planning (FP) programs to ensure quality FP services are available in ART clinics either as a one-stop shop or as a referral service. PEPFAR will leverage FP programs (especially FP commodities) to increase availability and expand FP options, ensure private spaces for proper counseling, strengthen referral completion, and improve documentation of FP uptake. Integrated FP/HIV services will contribute to the reduction in MTCT rates in Malawi by preventing unintended pregnancies among WLHIV. Similarly, it will improve the quality of care provided to women of reproductive age who want to transition to DTG-based regimen and are not planning to get pregnant.

**AGYW Retention and Viral Suppression:** Similar to other HIV outcome statistics, AGYW living with HIV fare poorly in retention and viral suppression. For example, many AGYW are lost to follow-up soon after ART initiation.<sup>27</sup> Moreover, program data<sup>28</sup> and MPHIA show that AGYW have lower viral suppression levels compared to adult men and women.

<sup>27</sup> Tweya H., et al., 2014, Understanding factors, outcomes and reasons for loss to follow-up among women in Option B+ PMTCT program in Lilongwe, Malawi, <http://onlinelibrary.wiley.com/doi/10.1111/tmi.12369/pdf>

<sup>28</sup> Program Data (FY19 Q1): Partners in Hope

In COP19, PEPFAR will:

- Improve the quality of post-test counseling to ensure those who are newly initiated on treatment have a strong understanding of ART treatment including its benefits, side effects, and the need for lifelong commitment;
- Engage lay cadres (e.g., expert clients and community health workers) as case managers for adolescents, especially in the first three to six months post-ART initiation where most of the loss to follow-up happens. Providing disclosure support as well as partner notification services will be key aspects of the case management package;
- Strengthen the back-to-care program including tracing of PLHIV who miss their appointments through roll out of SOPs and monitoring and evaluation tools, and deployment of Expert Clients;
- Implement regular viral load audits to identify those adolescents who may have missed a viral load test despite reaching a viral load milestone and do catch-up testing;
- Collaborate with Global Fund and other stakeholders to roll out the T=T initiative including building site-level capacity to scale-up annual viral load testing (HRH, in-service training, etc.);
- Implement quality improvement interventions to increase performance along the “high viral load cascade.” PEPFAR partner data shows significant drop offs along the cascade; and,
- Work with MOH to scale up differentiated service delivery models, such as six-monthly multi-month dispensing, Community Adherence Clubs (CACs), and teen clubs, across priority sites. AGYW who participate in teen clubs have better viral suppression than those who are not teen club members<sup>29</sup>. These interventions will offer peer support, significantly reduce the frequency of facility visits, and save clients travel time and cost which will lead to better adherence and retention. The resulting reduction in PLHIV volume at the ART clinics will enable providers to spend more time on PLHIV with advanced HIV.

**4.1.3 Children and Adolescents:** The number of children receiving ART was at 44,207 by September 2018, representing an estimated coverage of 65% against the estimated children living with HIV (CLHIV) of 67,682 for that year. According to 2019 Spectrum data, the estimated number of CLHIV in Malawi is down to 62,351. Estimates of CLHIV have varied over the past five years based on assumptions used each year. In FY19, the ART coverage of CLHIV was at 76%; the gap to 90-90-90 for 0-9 year olds is 4,546 and 4,150 for 10-14 year-olds. The number of undiagnosed children is declining due to a successful PMTCT program.

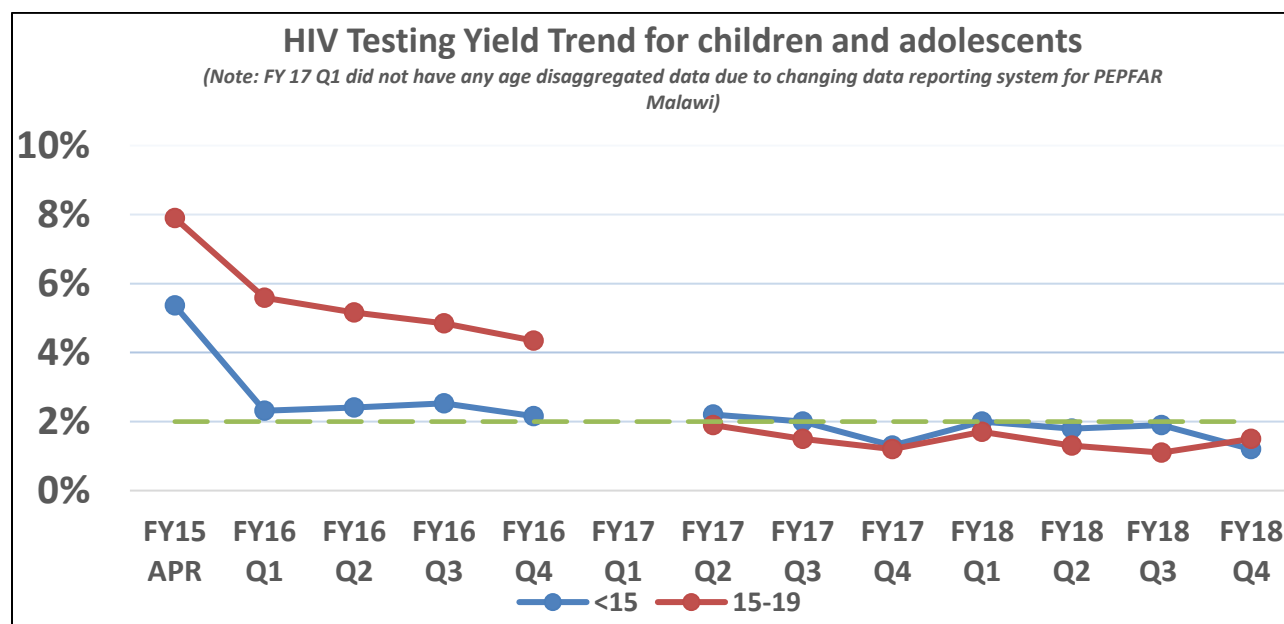
Case finding remains a bottleneck for both children and adolescents. The overall yield continues to decline, underscoring the need for smarter testing (Figure 4.1.20). Active index testing has shown

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<sup>29</sup> Program Data: EGPAF and Baylor

promising results with high testing yields of up to 12% achieved for children of HIV positive adults in the VAPN pilot.

**Figure 4.1.20 HIV Testing Yield Trend for Children and Adolescents in Malawi**



Linkage to ART for children identified as positive has improved significantly. Currently more than 90% are successfully linked due to various changes in the program including test and start and same day initiation policies, as well as the use of expert clients and linkage registers. However, linkage to treatment services for male adolescents remains a challenge, with an overall linkage rate of 65% in FY18. Utilizing youth peer supporters has shown impressive linkage rates in sites where used, and needs to be scaled up.

Viral load (VL) suppression rates are significantly lower for children and adolescents compared to adults in the ART program. The MOH report for September 2018 indicated low viral suppression rates for samples classified as “routine” among children (0-9 years at 55%) and adolescents (10-19 years at 67%), compared to adults in the age groups 20-29, 30-39, and 40 plus years who had viral suppression rates of 90%, 91%, and 93%, respectively. A MPHIA study (2016-2017) also showed very low community-level suppression rates for children, with 0-4 year-olds at 21.9%, 5-9 year-olds at 49.1%, and 10-14 year-olds at 50.3%.

The vast majority of children in the Malawi ART program are receiving sub-optimal ART regimens, with 95% currently on non-nucleoside reverse transcription inhibitor (NNRTI)-based regimens. Several studies and surveys indicate that about 40% of children < 5 years of age have pre-treatment drug resistance to NNRTIs, particularly NVP, largely due to exposure during PMTCT. Rapid phase out of NVP, as per updated WHO guidelines (December 2018), is therefore a high priority for COP19. This ART optimization and transition is anticipated to significantly improve viral load suppression rates among children in the program (Table 4.1.21).



Malawi adopted the updated WHO guidance and the preferred first line is DTG-based for age and weight groups with approved DTG dosing. Children weighing 20 kilograms or more will be transitioned to DTG-based regimens, while those under 20 kilograms will move to LPV/r-based regimens while awaiting availability of age and weight appropriate DTG formulations. LPV/r-based first line regimens for children under three years of age have been piloted at 17 facilities in Malawi using pellets formulation since 2017. A recent audit of this LPV/r pellets pilot revealed poor adherence to the pellets mainly due to vomiting associated with the bitter taste that occurs when the pellets dissolve. As a result, the six-month viral load suppression rate for children on pellets is very low at 52%. In COP19, Malawi will stop using pellets and adopt a newer granule formulation that should have better masking of the bitter taste. This transition is planned to commence at the beginning of October and will include all children, whether newly initiated or currently already on treatment.

**Table 4.1.21 Planned Optimal ART Regimen Transition**

| Current ART Regimen          | Weight     | Optimal ART Regimen for Transition | Considerations                             |
|------------------------------|------------|------------------------------------|--|
| AZT/3TC/NVP<br>ABC/3TC + NVP | < 20 kg    | ABC/3TC + LPV/r                    | Use of LPV/r granules between 3kg -13.9 kg |
|                              | 20-29.9 kg | ABC/3TC + DTG                      |  |
|                              | ≥ 30 kg    | TDF/3TC/DTG                        |  |
| AZT <sub>3</sub> TC + EFV    | < 20 kg    | ABC/3TC + LPV/r                    |  |
|                              | 20-29.9 kg | ABC/3TC + DTG                      |  |
|                              | ≥ 30 kg    | TDF/3TC/DTG                        |  |
| ABC/3TC + LPV/r              | < 20 kg    | Keep on the same regimen           |  |
| AZT/3TC + LPV/r              | 20-29.9 kg | ABC/3TC + DTG                      |  |
|                              | ≥ 30 kg    | TDF/3TC/DTG                        |  |

The focus for COP19 is therefore to provide optimized ART regimen for children, improve case finding, and address retention and viral suppression in order to meet the 90-90-90 goals. The following key activities will be implemented with fidelity across the cascade for children and adolescents in the 10 accelerated and scale-up districts:

- First 90:
  - Index testing, VAPN, family testing;
  - Use of screening tools in high volume setting like under 5, OPD, and OVC households;
  - Optimized PITC in inpatient, NRU, and tuberculosis– with a focus on scaling up age-disaggregated monitoring of coverage in order to identify where coverage is poor and implement corrective action;
  - Maintain the linkage systems, referral tools, and bi-directional facility-community referrals;

- Site-level HTS (including early infant diagnosis or EID) mentoring and quality improvement initiatives;
- Innovative service delivery models such as youth-friendly corners, after-hours, and weekend clinics; and,
- Targeted community testing focusing on children of key populations, OVC, and high-risk adolescents.
- Second go:
  - Active linkage systems for rapid ART initiation, with a focus on improving linkage among adolescent boys;
  - Advanced HIV clinical management ;
  - Specialized pediatric clinical mentoring in high-burden sites (only in accelerated districts);
  - Expert clients for linkage and retention;
  - Optimized ART regimens for all children and adolescents (either LPV/r or DTG-based regimen) and intensive adherence counseling to caregivers;
  - Specific pediatric clinic days; and,
  - Youth peer supporters for linkage of adolescents.
- Third go:
  - Peer support for active follow-up and intensive adherence counseling;
  - Promote use of adolescent treatment supporters;
  - Strengthen linkage with OVC platform;
  - Expand teen clubs;
  - More effective OVC referral and case management;
  - Optimized viral load monitoring (possibly move to yearly viral load); and,
  - Establish viremia clinics for children and adolescents with high viral load.

**Table 4.1.22 Summary of the Interventions for Children and Adolescents in Sustained/Attained Districts**

| Program Area                | Key interventions  |
|-----------------------------|--|
| <b>First '90'</b>           | <ul style="list-style-type: none"> <li>- Use of active index testing where resources allow and FRS if no active index testing services are available or where the client choose FRS as a strategy for index case testing at facility and community-level</li> <li>- Maintain the existing linkage systems; referral tools and bi-directional facility-community referrals.</li> <li>- Targeted district-level HTS (including EID) mentoring and quality improvement initiatives.</li> <li>- Maintain PITC in all high-yield service delivery points (pediatric wards, nutrition rehabilitation units, etc.) utilizing the existing HTS Providers (HSAs and/or HDAs). There will be no further expansion.</li> <li>-</li> </ul> |
| <b>Second '90'</b>          | <ul style="list-style-type: none"> <li>- Targeted remedial district-level clinical mentoring services.</li> <li>- Support the transition to optimized ART regimens in all the facilities.</li> <li>- Maintain pediatric ART services using the existing MOH staff.</li> <li>- Defaulter tracing using HSAs (MOH system).</li> <li>- Monitor the stock levels of pediatric ARVs to avert facility level stock outs.</li> </ul>  |
| <b>Third '90'</b>           | <ul style="list-style-type: none"> <li>- Continue provision of viral load sample transportation services.</li> <li>- Maintain standardized VL sample log and high VL registers.</li> <li>- Support VL samples collection by existing HSAs for pediatrics and adolescents.</li> <li>- Support implementation of frequent annual viral load monitoring once MOH adopts the policy.</li> <li>- Targeted clinical mentoring services to support clinical decision-making in case of high VL.</li> </ul>  |
| <b>Adolescent Treatment</b> | <ul style="list-style-type: none"> <li>- Support for already established Teen Clubs for differentiated adolescent care until fully transitioned to MOH.</li> <li>- Provide necessary technical support to MOH as they scale up Teen Club model in sustained districts using Global Fund resources.</li> <li>- Provide teen support hotline services.</li> </ul>  |

#### **4.1.4 TB/HIV in Accelerated districts**

Implementation of COP19 collaborative TB/HIV activities presents a critical opportunity to make significant progress towards achieving 90-90-90 goals and reduce TB-related deaths among PLHIV in Malawi. Priority interventions will include TB case finding among PLHIV, including integration of HIV and TB case finding; optimized treatment for PLHIV with TB/HIV; and TB prevention among PLHIV.

To facilitate early TB detection and improve the quality of TB screening, PEPFAR partners will deploy, mentor, and supervise lay cadres to provide systematic TB symptom screening to clients accessing HIV services in high TB/HIV burden facilities. The lay cadres will also conduct tracing of

contacts of PLHIV with bacteriologically confirmed pulmonary TB disease to provide TB and HIV screening, as well as TB preventive therapy, as per local guidelines. Additionally, these lay cadres will extend TB screening, integrated with HIV screening, to contacts of bacteriologically confirmed pulmonary TB PLHIV. PEPFAR will support use of sensitive molecular testing for TB including Xpert MTB/RIF Ultra through procurement and distribution of test cartridges to supplement those procured by the Global Fund. PEPFAR partners will maintain a contract for GX alert system with System-One to help monitor the performance and usage of the Xpert devices, ensure linkage of all diagnosed PLHIV to treatment, more so for MDR and HIV PLHIV, help capture TB/ HIV indicators, and finally, facilitate provision of supplies as it provides data on stock status of test cartridges. PEPFAR will continue to support the hub and spoke Xpert network to optimize access and utilization of the available Xpert platforms through strengthening of the national sample transportation and results reporting system.

Additionally, PEPFAR will procure and scale-up the use of urine lipoarabinomannan (urine-LAM) assay as a rapid point of care diagnostic of disseminated TB for PLHIV presenting with advanced HIV disease. PEPFAR Malawi has been a consistent advocate for TB Preventative Treatment (TPT) and partners with MOH to offer life-long isoniazid preventive therapy (IPT) in five districts. With the exciting determination that three-month rifapentine/isoniazid regimen (3HP) has no negative interactions with DTG, there is an opportunity to scale 3HP in Malawi. PEPFAR is working closely with MOH to partner in the needed transitions from lifelong IPT to 3HP in the existing five districts as well as expanding to a national scale. The limiting factor is the cost of 3HP (approximately \$45 per dose) which needs to drop below \$20 to be an affordable intervention in Malawi that can be included within the existing Global Fund commodity support with programmatic support from PEPFAR. UNITAID and Clinton Health Access Initiative (CHAI) have regional resources to accelerate the implementation of 3HP. PEPFAR works closely with both stakeholders to continue to advocate for rapid expansion.

HIV testing in the Tuberculosis program presents a good opportunity to meet the first 90 of the UN 90/90/90 goals and reach men as TB affects more males than females in Malawi. Although coverage of HIV testing among confirmed TB PLHIV is high, there is need to improve testing among presumptive TB PLHIV. PEPFAR partners will utilize the HIV diagnostic Assistants to provide HIV testing among all presumptive TB and TB PLHIV. They will also offer HIV testing to TB household contacts routinely traced in the TB program. For co-infected PLHIV, PEPFAR will promote early ART and TB treatment initiation, including fast-tracking HIV positive TB PLHIV for initiation of ART and vice versa. PEPFAR will also coordinate with Global Fund-supported community TB screening efforts to ensure HIV testing of all presumptive TB cases within the community through its community HTS partners, particularly of men who may be less inclined to visit health facilities.

Since Q4 FY17, PEPFAR Malawi has pioneered the implementation of TB preventive therapy using IPT in five prioritized high TB/HIV burden districts. PEPFAR's goal is IPT expansion with 3HP for all PLHIV by 2021. In COP19, PEPFAR will support a UNITAID-funded demonstration project to provide 60,000 courses of 3HP in five districts beyond the current five IPT districts. PEPFAR and

UNITAID implementing partners will collaborate to build the capacities of health facility staff to manage the 3HP implementation. This project is designed to both decrease global costs for 3HP and inform implementation, including distribution of IPT for children, as is the standard of care. IPT for children under the age of five years exposed to TB will continue as per NTP guidance.

In COP19, PEPFAR will continue to support implementation of a quality assurance program for TB diagnostic platforms, including proficiency testing for Xpert and microscopy.

#### **4.1.5 Community ART with Adherence Clubs**

In COP18, PEPFAR partners are implementing nurse-led community ART distribution in Lilongwe, Mangochi, Machinga, and Chikwawa. This service package includes refills for ARVs and cotrimoxazole, adherence support, screening for TB and other opportunistic infections, access to contraceptives, index testing, and screening for hypertension. PEPFAR IPs will scale this up to other locations where PLHIV have to travel long distances to ART clinics and in the catchment areas of high volume sites in urban locations to improve adherence and reduce patient volumes and waiting times. At the community level, IPs will continue to strengthen and link PLHIV to existing support groups.

By the end of COP19, PEPFAR will support implementation of community ART models in all 10 scale up districts. The model will use the PEPFAR COP18 and COP19 funded Community Health Nurses (CHNs) and Health Surveillance Assistants (HSAs) to distribute ART once every six months at select sites (however, CAC members may meet more frequently for ongoing adherence counseling and peer support which will be facilitated by Expert Clients). In addition to ART dispensing, CHNs will provide other clinical services (e.g., TB screening, viral load sample collection) as needed during their visits to the targeted clubs.

Where they exist, support groups will serve as platforms for community adherence clubs. PEPFAR will work with expert clients and other community cadres to establish new adherence clubs where these support structures are not functional. Client-demand will guide implementation with sites farther from ART clinics prioritized for CAC roll-out. The MOH DSD task force, in consultation with other key stakeholders, will develop criteria for site selection and the tailoring of interventions for specific PLHIV groups.

PEPFAR funded HDAs, HSAs, and/or expert clients will help facilitate the clubs and recruit people into them. CHNs would collect drugs from either a Village Health post or Health Centre for delivery to communities and use MOH registers to reconcile the commodities. Some of the adherence clubs will be specific to target populations based on gender, age, or key population groups.

Complementary services currently in place include:

- HSAs have a clearly defined population and most of them stay within the communities;
- Most HSAs have either a bicycle or motorcycle;
- HSAs are already within the government establishment and on government payroll;

- MOH will soon construct Village Health posts through GAVI grant; and,
- CHNs are within the government establishment

## **4.2 Prevention for Priority Programming**

### **4.2.1. HIV Prevention for AGYW and Children**

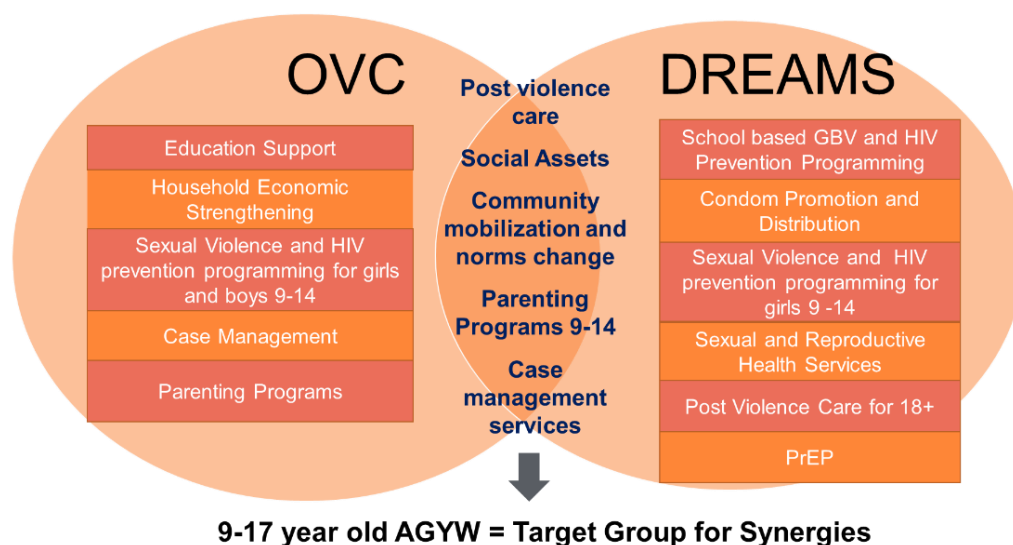
The 2016 MPHIA confirmed AGYW continue to be disproportionally affected by HIV/AIDS compared to their male peers. From a young age, adolescent girls are exposed to early sexual debut, childbearing, child marriage, and violence. AGYW face barriers to health care services and are less likely to adhere to HIV treatment. Over the past year, Malawi has seen increased government commitment to addressing challenges AGYW face with the launch of the National Strategy for AGYW. The Strategy defines a coordination and referral framework with a multi-sectoral response to reach vulnerable AGYW. When implemented, the Strategy will empower districts and local authorities to take a whole of government, cross-sectoral approach to meeting the needs of AGYW. Resources remain a challenge, but the USG continues working with other donors through an AGYW leadership task force (part of the Heads of Cooperation) to galvanize new resources and/or align existing to implement the Strategy.

In FY20, PEPFAR Malawi will continue to reach vulnerable AGYW in the DREAMS districts (Zomba, Machinga, and Blantyre), with comprehensive services, including pre-exposure prophylaxis which was approved in December 2018. In COP19, 10 – 14 year olds enrolled in DREAMS will make up 43% of the 35,000 new DREAMS enrollees targeted with sexual violence prevention and early HIV prevention programming. This is in response to Malawi's 2013 Violence against Children Survey (VACS) data highlighting the urgency of dealing with high levels of violence and evidence regarding the impact of primary prevention and. Fewer 20 – 24 year olds (19%) are enrolled in DREAMS as most AGYW in this age group already participated in and completed the program. Interventions targeting the parents of 10-14 year olds (i.e., Families Matter!) will continue in COP19 as parents play a key protective role for this younger age group. Additionally, PEPFAR implementing partners will continue to engage traditional and faith leaders in promoting positive gender norms and fostering supportive environments for younger adolescents.

In FY20, DREAMS Malawi will modify strategies to reach the most vulnerable AGYW to ensure that those enrolled are in fact the most vulnerable to HIV. PEPFAR will ensure that AGYW found in STI and ANC clinics are enrolled in DREAMS through active referrals. This will complement continued identification of in- and out-of-school AGYW for vulnerability screening through community structures such as traditional leaders, community-based organizations, child protection committees, Victim Support Units, mother groups, schools, and Parent Teacher Associations (PTA). Implementers will track layering of AGYW using an electronic DREAMS database. Each AGYW enrolled in DREAMS will have a unique identifier to facilitate the tracking and reporting of layered services. To ensure access to layered services, PEPFAR will apply active linkage strategies such as bringing services directly to AGYW in clubs, having a club leader escort AGYW to facilities,

and clustering AGYW from different clubs to go to health facilities or mobile clinics in groups. Before an AGYW complete DREAMS, IPs will assess ongoing risk, verify whether the beneficiary received the intended primary and secondary services and determine her readiness to complete DREAMS.

**Figure 4.2.1 DREAMS and OVC Synergies**



COP19 will enhance synergies between the OVC and DREAMS portfolios (Figure 4.2.1). OVC programming will expand enrollment of 9-17 year-old AGYW reached through OVC household assessments, referrals from mother's groups, and from AGYW presenting at ANC, Maternity, and HIV services in health facilities. Go! Girls Club content will include GBV prevention and risk avoidance activities using evidence-based curricula. PEPFAR will reach parents of younger AGYW with household case management, economic strengthening support, and parenting curricula designed to strengthen parental communication for improved home-based psychosocial and sexual reproductive health (SRH) support.

In FY20, with the support of implementers, DREAMS Ambassadors will continue to mobilize AGYW for post-GBV and SRH service uptake and continue to mentor AGYW in making reusable sanitary pads for their own use and as well as income generation.

In support of DREAMS in FY20, Peace Corps Volunteers will continue to coordinate with District Health Office counterparts to ensure continued collaboration among all AGYW stakeholders and implementers within the three DREAMS districts. This will help reduce duplication of efforts and promote collective monitoring of quarterly results for refinement. Peace Corps will also place Health and Education Volunteers in DREAMS districts to support education and health services for youth, with a particular focus on AGYW.

Peace Corps Volunteers (PCVs) and their counterparts will provide 9 to 14 year-olds with school or community-based HIV and violence prevention programs. The evidence-based curricula (Grassroots Soccer PC Skillz and Go! Girls Clubs) will include information, education, and life skills to help delay sexual debut and support healthy decisions, reducing the risk of HIV and sexual violence. PCVs will refer youth to HIV, VMMC, ART, and youth-friendly health services in PEPFAR priority districts. PCVs and their counterparts will also provide school or community-based HIV and violence prevention programs to youth 15 to 19 years old.

At the health facility level, PCVs and their counterparts support the implementation of youth-friendly health services in the 10+1 priority districts. Certified trainers from the MOH will train Peace Corps Volunteers and their counterparts in youth-friendly health services. They will then train their fellow health center staff on youth-friendly health services.

According to the VACS, one in five girls has experienced at least one incident of sexual abuse prior to the age of 18 years old. In FY20, PEPFAR will implement violence prevention interventions targeting community and faith leaders, men and boys, as well as AGYW in communities. PEPFAR will address low uptake of post-GBV services through community mobilization and sensitization using the Every Hour Matters campaign to educate communities that people who have experienced violence need to seek out post-violence care as a first response. DREAMS Ambassadors will continue to mobilize AGYW for post-violence services uptake, while PEPFAR will continue to build the capacity of public health facility service providers and peer educators on service provision and reporting. In COP18, PEPFAR is integrating the violence prevention modules developed by S/GAC into the DREAMS toolkit. State Department-funded GBV programs will complement these efforts.

In COP19 PEPFAR will strengthen community mobilization and norms change work by working through CBOs and leaders, men, and women who participate in community action sessions. PEPFAR will engage faith-based communities using SASA! Faith curriculum to train and mobilize community-level religious leaders as champions of GBV and HIV prevention. Similar to CBOs, PEPFAR will support faith-based communities to develop action plans focusing on GBV prevention and mitigation, an area where faith-based communities can have tremendous impact. Additionally, PEPFAR will implement gender norms activities targeting men using programs like Coaching Boys into Men.

As PrEP was included in the Malawi national HIV prevention guidelines in December 2018, the Malawi DREAMS program will incorporate PrEP as a secondary DREAMS intervention in FY20, expanding on FY19 implementation among this population in Lilongwe. AGYW PrEP implementation will expand to all three DREAMS districts (Blantyre, Zomba, and Machinga), as well as four other priority districts (Thyolo, Mzimba, Lilongwe, and Chiradzulu) as part of PEPFAR Malawi's larger PrEP roll-out program targeting other eligible individuals such as key populations and sero-discordant couples. The overall AGYW PrEP target is 1,452, with the greatest reach in the DREAMS districts. PEPFAR DREAMS implementers will identify and monitor potentially eligible AGYW through community partners in Blantyre, Thyolo, Mzimba, and Chiradzulu. Through an active referral system and following an eligibility assessment, facility staff will initiate clients onto



PrEP until national policy permits community initiation of ART. Facilities will integrate PrEP into youth-friendly health services, ANC, STI, and other service delivery points that AGYW often access. Finally, partners will engage peer educators to build awareness of PrEP and promote retention.

PEPFAR will continue to provide a contraceptive mix to AGYW to reduce the number of unwanted teenage pregnancies and DREAMS will continue to track data on AGYW brought back from early and child marriages in the three DREAMS districts. In FY20, PEPFAR will work to ensure AGYW previously supported by the DREAMS Innovation Challenge who are still in need of secondary school scholarship support continue their education.

**FY20 key activities include:**

- Enroll vulnerable AGYW from health facility entry points into DREAMS programming;
- Use an electronic DREAMS database to track layering across partners and inform programming;
- Mobilize communities using Every Hour Matters campaign for uptake of post-GBV services;
- Build capacity of health care service providers on post-GBV service provision;
- Provide PrEP to AGYW at the highest risk of contracting HIV;
- Provide social asset building component of DREAMS to AGYW engaging in transactional sex;
- Actively link AGYW to services; and,
- Improve economic strengthening beyond village savings and loans.

**OVC HIV Activities:** Malawi has a population of 17.6 million people and nearly half (48%) are under the age of 15 with 51% under the age of 18. It is estimated that there are over 1.4 million children affected by HIV/AIDS, representing 9% of the total population and 17% of all children. Of these 1.4 million children affected by HIV/AIDS, 770,000 (55%) have been orphaned due to AIDS-related deaths. Orphan-hood rises rapidly with age, from 3% among children under age five, to 10% among children ages five to nine, and 24% among children ages 15-17. One in five (20%) Malawian children do not live with a biological parent. These numbers reflect a social crisis and a significant risk to epidemic control.

COP19 includes a deliberate increase of targets for OVC in the 10 -17 age-group. Through direct service delivery, PEPFAR Malawi will provide comprehensive HIV impact- mitigation, prevention, and treatment services to OVC and their households to address contributing factors to vulnerability. The OVC program encourages the application of evidence-based models such as Families Matter!, Sinovuyo Teens, and Grassroots soccer for adolescent girls and boys. In COP19, PEPFAR Malawi expects to reach 126,597 OVC and caregivers with comprehensive services. The

program will also work to ensure children already enrolled in the program are risk-assessed and linked to appropriate HIV services.

Activities will span four main domains (healthy, safe, stable, and schooled) coordinated through robust case management efforts. The OVC program will provide age-appropriate activities as needed, including: risk assessment; linkage to HIV services and support; EID; psychosocial support; group-based interventions promoting positive parenting and norms change; child protection and GBV services; savings and loans groups; work readiness; market-based income-generating activities; market driven vocational training; and, school block grants and material support to ensure OVC attend and progress in school. In COP19, PEPFAR will support keeping children in school through community mobilization, material support, school block grants and facilitation of readmission for dropouts; life-skills training with integrated health messaging to children, both in- and out-of-school, and market driven vocational training for older adolescents. COP19 will strengthen efforts to enroll more children living with HIV into the OVC program, currently 9% of the cohort (<18) are CLHIV. The program will intensify risk assessment efforts to find “well” HIV positive children (< age 10) outside of clinical settings and link them to care. Strengthened collaboration with health facilities will lead to enrollment and implementation of OVC group activities at facilities. PEPFAR will train facility-based cadre (in at least 70 facilities) to assess, recruit, and ensure referral completion of children living with HIV into the OVC program. PEPFAR will scale up viral load monitoring services, which will reach all the CLHIV enrolled in the program. PEPFAR will provide CLHIV with appropriate services and support to ensure viral suppression.

To provide high-quality social support and age-appropriate information about HIV infection, treatment, adherence, HIV status disclosure, positive living and life skills needed for growing into healthy adults, PEPFAR will intensify enrollment of children and adolescents ages 5–19 into psychosocial support groups. PEPFAR will provide a comprehensive package of services using the case management approach. Peace Corps Volunteers and their counterparts will support adolescents living with HIV (and their caregivers) through teen clubs that provide guidance on nutrition and well-being, life skills, ART adherence, hygiene, and psychosocial support. Peace Corps Volunteers will also link adolescents living with HIV from the health center to OVC service providers in the community. COP19 will emphasize support to mothers/caregivers and HIV-exposed children 0–24 months old to assure early diagnosis, adherence and retention on treatment, and provide holistic parenting support to optimize HIV-exposed children’s developmental outcomes. The OVC program will expand Families Matter! and Sinovuyo to reach more beneficiaries in Blantyre, Zomba, Machinga and Lilongwe, while introducing the curricula in Chikwawa and Mangochi in FY20. In COP19, strengthened linkages with implementers serving key populations will reach more children of female sex workers through the OVC program.

Evidence from the 2013 VACS paints a sobering picture of childhood in Malawi. According to the VACS, 32.4% females and 50.8% males aged 16–24 had sex at or before age 15. Of those who had their first sexual intercourse prior to age 18, one out of three females and one out of ten males experienced their first sexual intercourse unwillingly - meaning they were forced or coerced to

engage in sexual intercourse. One in every five girls and one in seven boys are sexually abused before the age of 18. In the case of sexual violence, more than 60% of victims told someone about the maltreatment but less than 10% ever received services. Service uptake was similarly meager for physical violence with half to two-thirds of children telling someone about the abuse, but less than one in ten children received services. Boyfriends or romantic partners, friends, or classmates were the most frequent perpetrators of first incidents of child sexual abuse. Among 13 to 17 year-olds, one-fifth of females and one-fourth of males reported an adult family member as the perpetrator, while one-fifth of females and one-third of males reported a peer. The child's most common explanation for not pursuing services was that they did not view the violence as a problem, establishing that changing social norms must be a priority. Preventing sexual violence and HIV for 9-14 year old girls and boys will continue to be a key focus in COP19 in line with the Malawi National Intervention Framework, as identified within the priority responses to VACS, as noted below in Figure 4.2.2.

**Figure 4.2.2 Malawi National Intervention Framework**



The National Intervention Framework notes that the wellbeing of children is a multi-dimensional and cross-sectoral challenge with numerous barriers. The result is a multi-sectoral response plan incorporating various government ministries, law enforcement, the judiciary, civil society, faith-based organizations, the private sector, research institutions, the media, families and communities.

Through evidence-based and developmentally appropriate activities, COP19 will focus on preventing sexual violence and HIV risk before it happens (i.e., preventing any form of coercive/forced/nonconsensual sex and preventing early sexual debut) and activities to help youth reduce risk or consequences of exposure to risk (i.e., reduce number of partners, use condoms, use

PrEP, access to post-violence care). For the 9-14 age group, activities will focus on preventing youth from exposure to risk (primary prevention) and for the 15 to 17 age group, activities will focus on a combination of preventing risk and reducing risk. COP19 will continue to prioritize and target the 9-14 age group (at least 40,000 to be reached in COP19) with age-specific evidence-based curricula with skills building components such as Families Matter!, Sinovuyo Teens, and Grassroots soccer. The integration of the evidence-informed S/GAC-developed modules (namely Module 1: Healthy and Unhealthy Relationships; Module 2: Making Healthy Decisions about Sex; and, Module 3 Understanding Non-consensual Sex) will continue in COP19. PEPFAR will intensify collaboration with FBOs and community-based organizations through the introduction of evidence-based community mobilization/norms change interventions such as SASA! Faith and Coaching Boys into Men.

Implementation will be sensitive to sexual violence and other factors shaping adolescent sexual behaviors (such as initiation rites, forced sex, and transactional sex for survival). Programming will not blame youth or make them feel ashamed for factors outside of their control but will provide them with accurate information on the benefits of delaying sexual debut when they have the ability to do so and employ comprehensive safer sex practices when they choose to engage in sexual activity in the future. In partnership with the GOM, PEPFAR will develop child safeguarding policies to ensure that new CBOs, FBOs, and faith communities engaged in COP19 have policies in place to prevent abuse and exploitation of minors within their structures.

Efforts to strengthen the National Case Management System through working with the Ministry of Gender, Children, Disability and Social Welfare will continue in COP19. These efforts will ensure all child protection workers and other community based para-professionals, are trained, especially in sexual violence and HIV prevention. The HIV sensitive case management system ensures children exposed to HIV/AIDS, violence, abuse, neglect, and exploitation can access needed social welfare, justice, and specialized healthcare services. Lay workers/community-based para professionals are key components of the case management system and will be trained with support from PEPFAR. In COP19, PEPFAR Malawi will continue to work with the GOM to build a strong national social welfare system capable of preventing and responding to violence through continued support through the development of the national social workforce and national case management coordination. The GOM will finalize the restructuring of the Social Work degree program to permit completion within two years instead of the current four years. A two-year degree program will inject the much-needed, qualified social workers into the child protection system quicker, resulting in better protection for children and adolescents. In COP19, an engaged local partner will spearhead this systems strengthening agenda.

### 4.2.3 Prevention of Mother to Child Transmission (PMTCT)

Prevention of mother-to-child transmissions of HIV forms the core programming to prevent HIV in children. The PMTCT program in Malawi is a model to many countries for implementation of Test and Start for pregnant and breastfeeding women. MPHIA and Malawi Demographic and Health Survey (MDHS) conducted in 2016-2017 reported high levels of ANC attendance among pregnant women. The September 2018 national HIV program report and the 2018 PEPFAR annual progress report indicate 98% HIV status ascertainment and 97% ART coverage among pregnant women attending ANC. Transmission rates have also remained below 2% in both the monitoring and evaluation reporting (MER) and MOH quarterly reports for infants two months of age. The National Evaluation of the Malawi PMTCT Program (NEMAPP) study estimates 4.7% overall transmission at the end of breastfeeding. Additionally, PEPFAR partner performance on PMTCT indicators has consistently been high.

However, despite the high performance with service coverage indicators and attaining <5% overall transmission rates, high prevalence prevents Malawi from achieving elimination of mother-to-child transmission of HIV (eMTCT). WHO criteria for validation of eMTCT require high service coverage indicators (>95% ANC attendance, status ascertainment, and ART coverage), transmission rates of <5%, and a case rate of <50 cases per 100,000 live births. At the current prevalence rate (8.7%, MPHIA) and transmission rate (4.7% NEMAPP), the estimated case rate for Malawi is at 409 per 100,000 live births.

Besides maintaining high levels of HIV case identification and high ART coverage among HIV positive pregnant and breastfeeding women, COP19 will focus on key areas with pockets of high transmission rates in the PMTCT program to progress towards eMTCT. Based on PEPFAR MER, NEMAPP, and updated Spectrum data, PEPFAR has identified three priority areas including programming for AGYW in PMTCT, incident infections particularly during breastfeeding, and viral suppression for pregnant and breastfeeding mothers. Figure 4.2.1 summarizes the challenges and approaches for these three priority areas.

Retention in care and early infant virologic testing remain areas of critical focus. About 30% of the women enrolled in the PMTCT program are lost to follow up by 24 months. Interventions planned for COP19 address the whole continuum of care starting with quality counselling at diagnosis, interventions during care, including DSD, peer support, tracking appointments, and interventions to bring back those that have defaulted (an expansion of the back-to-care program). On the other hand, early infant virologic testing has improved substantially from 28% coverage in FY16 Q1 to 83% coverage in FY 19 Q1. This is on track to the national (and WHO) target of 85%. Scaling up sample transportation system, HDAs program, and adding more molecular lab machines contributed to these gains. However, the goal for COP19 is for all programs to achieve testing for 90-95% of HIV-exposed infants by two months of age.

Activities to improve retention and maintain momentum in EID testing include:

- Continue salary support for, and increased numbers of expert clients (mentor mothers) to assist with peer navigation, psychosocial support/counselling, and community follow-up for those that miss appointments;
- Index testing in antenatal clinic and maternity clinics (including use of HIV self-tests) to engage partners of HIV positive women;
- Continue implementation of Mother Infant Pair Model;
- Integrate EID in immunization clinics;
- Continue mentorship and implementation of quality improvement activities to refine the most effective change packages, including intensive adherence counselling;
- Continue support for sample transportation system implementation and molecular lab functionality through quality management systems (QMS); providing technical support for EID POC roll-out; implementing laboratory information management systems; strengthening supply chain management; and,
- Continue working with other stakeholders to optimize POC EID testing.

**Figure 4.2.3. Three Priority Areas of Focus for COP19 for the Elimination of Mother-to-Child Transmission of HIV**

|                              | Priority Area   | Interventions   |
|------------------------------|---|---|
| AGYW                         | <ul style="list-style-type: none"> <li>• 30% at ANC 1 are &lt;25 yrs (FY 18 APR)</li> <li>• More likely to present as newly diagnosed (FY 18 APR)</li> <li>• 7 times more transmissions (NEMAPP)</li> </ul> | <ul style="list-style-type: none"> <li>• YFHS Trainings</li> <li>• DSD for youth (high burden districts/sites): scheduling, points of contact/champions, young mother clubs</li> <li>• Young Peer mothers</li> </ul>  |
| Incident infections          | <ul style="list-style-type: none"> <li>• Highest transmission rates (22% NEMAPP)</li> <li>• High transmission during breastfeeding period (SPECTRUM 2018)</li> </ul>  | <ul style="list-style-type: none"> <li>• Optimize Retesting in maternity</li> <li>• Recency Testing</li> <li>• Retesting during breastfeeding (Policy)</li> <li>• PrEP (policy)</li> </ul>  |
| VL suppression and retention | <ul style="list-style-type: none"> <li>• largest contribution to transmissions</li> </ul>   | <ul style="list-style-type: none"> <li>• VL at ANC 1 (Policy)</li> <li>• Pilot in acceleration districts (POC VL)</li> <li>• Strengthen Mentor mothers/MIP clinics/defaulters tracking</li> <li>• Case management with focus on the first 3-6 months post-ART initiation</li> <li>• Engage men through index testing/HIVST</li> </ul> |

Malawi is developing a new eMTCT strategy and PEPFAR will support the MOH to chart strategic direction and goals. PEPFAR will continue to advocate for additional viral load monitoring for

pregnant and breastfeeding women, retesting during breastfeeding, PrEP for pregnant and breastfeeding women at high risk of infection, and options for enhanced postnatal prophylaxis for infants at high risk of transmission as recommended by WHO.

#### **4.2.4 Key Populations and Prison Settings**

Key populations (KP) face numerous barriers in utilizing health services. However, there is increasing momentum in Malawi to reach FSW, MSM, and transgender populations with targeted programming and safe, non-stigmatizing services. A National Key Populations TWG was established in 2018 to facilitate strategic planning and coordination of KP investments across donors. Over the years, PEPFAR and Global Fund partners have been the main KP program implementers. However, six new KP-led community organizations were registered at the end of FY18 to accelerate KP health care access, especially for the hardest to reach. Implementation through KP-led organizations builds trust and eliminates fear, stigma, and discrimination at all stages of the KP continuum of care, improving the performance of KP HIV cascade indicators. The establishment of the national and district FSW coordination structures by the FSW Association (FSWA) has contributed to the standardization of operational systems across the districts. FSWA is one of the main stakeholders for PEPFAR's female sex workers program. PEPFAR consults with on how to improve indicator performance, especially in testing strategies, ART adherence, treatment as prevention, and tracking of the mobile FSW. Currently at the national level, NAC is leading the standardization of KP program tools and package of services, with the participation of all KP partners and stakeholders, making sure that quality services are available for KP wherever they may be. PEPFAR has trained HCWs on new national STI management, HIV testing, condom, and clinical HIV guidelines, which include anal STIs. These trainings also sensitize trainees on KP issues, such as customer care, to create KP-friendly public health facilities for improved KP service access. The KP and HCWs meet informally through Know Your Provider Sessions where they discuss solutions to service access and allay anxiety and fears. This allows KP to meet a familiar face when they visit the clinic.

High-level stakeholder engagement continues to improve with increased dialogue at national, district, and local levels. GIZ is supporting a one-year district mentoring program for all KP implementing partners and supporting the process of tools standardization.

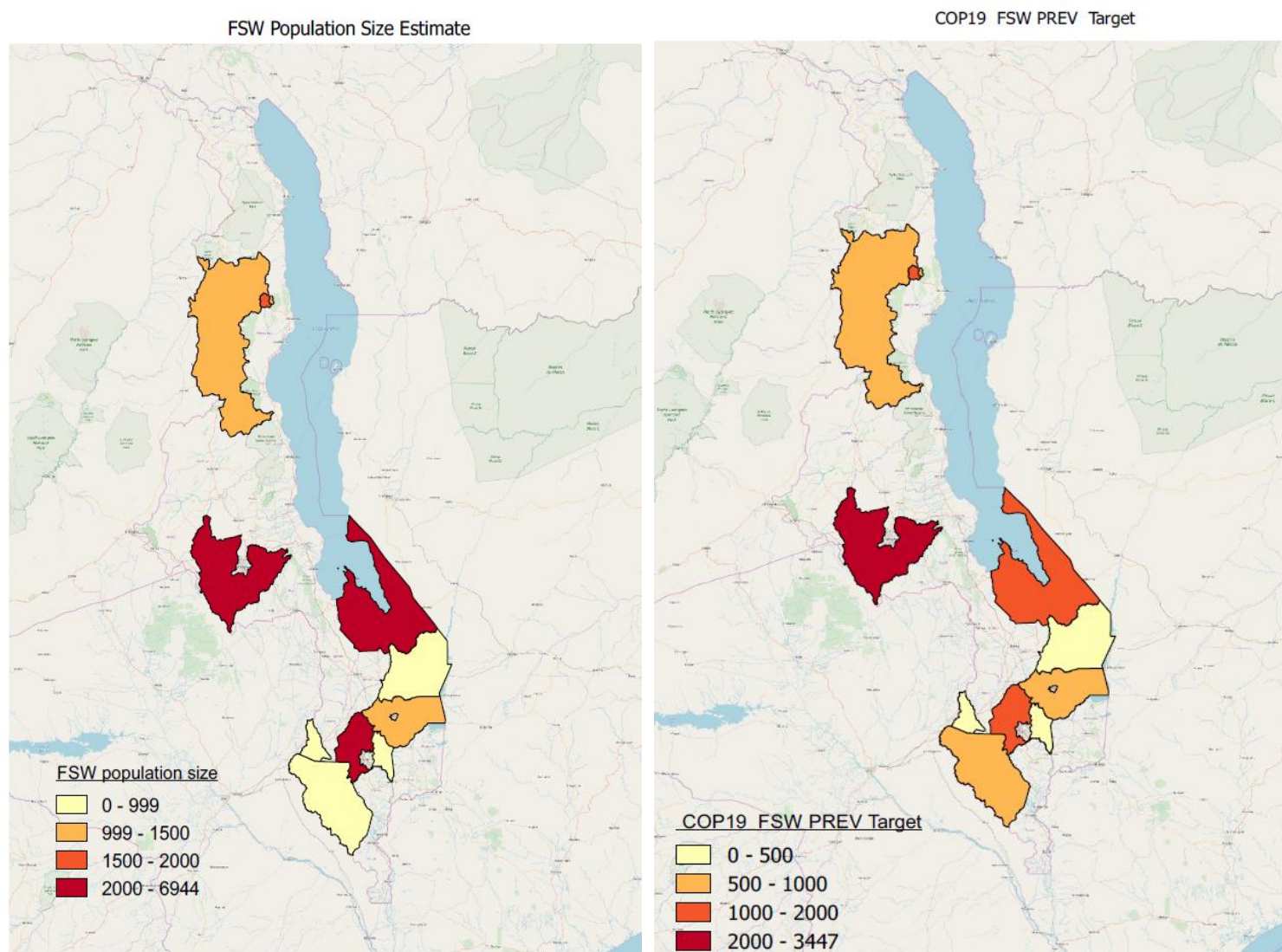
**Reaching Key Populations with Services:** The KP investment will continue to optimize strategies to reach HIV negative and HIV positive KP with comprehensive prevention, treatment, and care services, address leakages in the clinical cascade, and expand hotspot coverage in the high-burden scale-up districts of Blantyre, Zomba, Machinga, Mangochi, Lilongwe, Mzimba, and Chikwawa based on annual revalidated hotspot assessments. Other key districts include Mwanza and Chiradzulu. Well-trained and trusted peers will reach MSM and transgender people with expansion expected among hidden MSM through a virtual platform (e.g., SMS-based and leveraging social media), piloted in FY18. Enhanced peer outreach approaches will expand to all MSM sites using newly trained peer groups rolled out to FSW underperforming sites, targeting the hard-to-reach FSWs. Community led outreach approaches in transgender specific safe spaces will continue to

focus on empowerment of transgender leaders (peer educators/peer navigators). The Peer Educator Microplanning approach will continue to ensure that KP are tracked through the cascade and will drive the T=T campaign. The nine KP districts are in different geographic categories so PEPFAR will implement a differentiated care provision approach.

**PEPFAR Package of Services for KPs by Geographic Prioritization and Interventions:** In eight high-burden districts - Blantyre, Machinga, Zomba, Mangochi, Lilongwe, Chikwawa, Chiradzulu and Mzimba - the KP program continues to provide a cascade of comprehensive HIV prevention, care, and treatment services through 17 drop-in centers, mobile outreach in hotspots, and supported KP friendly public and private facilities. Key approaches include well-trained health care workers to provide clinical services, KP lay personnel (peer educators and HIV positive peer navigators), and direct service delivery to beneficiaries. Peer-led activities increase self- and community-efficacy to adopt healthy behaviors and access services addressing the continuum of care for HIV positive individuals. The KP comprehensive package includes routine delivery directly or through referrals to other service-providing centers of condoms/lubricant, quarterly HIV testing and STI screening and treatment, family planning and cervical cancer services, TB, PMTCT, and post-GBV services treatment and care. PEPFAR is also providing selected services in Mwanza which is a major transportation route bordering Mozambique, creating hot spots of high HIV transmission. PEPFAR will provide these services through the KP platform including HTS, condoms and prevention messages to clients of FSW, children of sex workers, and underage girls (<18) that are exploited and found at hot spots.



**Figure 4.2.4 FSW Populations Mapping in Malawi**



Size estimation is key to implementing an effective KP program. The National AIDS Commission (NAC) conducted size estimation for six priority districts in 2016 through PLACE I, while fifteen more districts were added in 2018. Blantyre, Lilongwe, Mzuzu, Mangochi, Zomba and Machinga are the PLACE I districts. Additionally, hot spot validation is an ongoing activity to inform the program-targeted venues. PEPFAR targets reflect the estimated KP sizes in the districts.

**Key Populations Portfolio Performance Updates:** PEPFAR implementers achieved over 25% of the FY19 annual target in Q1 for reaching FSW with 37% HTS\_TST and 98% linkage to treatment. Although implementer reached only 22% of MSM and transgender groups, PEPFAR reached 26% of the annual testing target with 100% linkage to treatment. PEPFAR already is implementing new strategies, including enhanced peer outreach approaches, peer educator microplanning, and social network testing, which will be enhanced in COP19. Introduction of self-testing is expected to

improve HIV testing of the hardest to reach KP, like sexual networks. Close monitoring of Drop-In Center (DIC) performance, peer navigation and peer educator microplanning will continue to ensure KP linkage to treatment, adherence, and viral load suppression.

Strategic updates in COP19 already under implementation for potential scale-up include:

- ART Provision for MSM and FSW in Drop-In-Centers (DICs): Initially provided to FSWs at DICs and currently both FSW and MSM freely access HIV testing, ART, STI screening and treatment. Ministry of Health (MOH) and District Health Office (DHO) provide support to these centers, which includes staffing some centers. Provision of routinely integrated medical checkups in DICs and outreach activities further facilitate treatment uptake, retention, and opportunistic infections management.
- Children and Clients of FSW: PEPFAR will continue to reach FSW family members and clients with HTS, STI, family planning, and GBV screening. In FY19, PEPFAR will continue to track children to ensure appropriate follow-up and referrals for child friendly services including early infant diagnosis of HIV, treatment, referral for psychosocial support, nutrition support, and social services including education and child protection.
- PrEP: In December 2018, MOH incorporated PrEP into the National Guidelines, allowing for rapid implementation and scale-up of PrEP services for key populations. The National Oral PrEP Task Force leads the efforts to initiate national roll-out and the PEPFAR strategy aligns with these efforts. Currently, PEPFAR is providing PrEP to 576 FSW HIV negative FSWs (as part of a KP prevention package) enrolled in three drop-in centers in Blantyre for a period of one year through an implementation science project. Further scale is underway utilizing COP 18 resources and donated commodities through the DREAMS initiative.
- Strengthening of HCW and Peer Educator capacity - Microplanning strategy: KP may experience self-stigma which makes it difficult for them to visit care centers especially when the HCW are not trained in KP specific issues. Provision of HCW KP sensitive trainings will continue in COP19 to ensure existence of KP friendly facilities with knowledgeable and skillful HCW. Peer educators are often the first contact of KP in their own settings, so therefore their training is key. Training peer educators empowers them to implement the peer educator microplanning strategy, which ensures that each KP receives relevant services of the prevention package and tracked through the cascade.
- Initiation of T=T campaign: Appreciating the importance of taking ART the same time every day and keeping one's viral load suppressed is very crucial to KP. Education sessions are held for both HCW and KP in these issues. This campaign will build on these sessions to address the existing knowledge gap in order to surpass the FY18 95% KP viral suppression achievement.
- "Know Your Provider Sessions": KP and health care workers meet to develop rapport in an informal setting, helping to allay fears and anxiety from KPs visiting health facilities. The

goal is for KPs to meet these familiar faces at the facility and then freely disclose any health conditions and receive appropriate treatment, e.g., anal STI testing. HIV testing is offered at these sessions.

**Prison Settings:** Review of partner performance of KP in prisons during FY18 demonstrated 100% HIV testing rates due to the introduction of a testing eligibility diary. Each inmate is booked for the next testing date on the day they test negative. However, poor tracking of remandees historically led to low linkage rates, though the linkage rate improved from 32% in FY18 to 86% in Q1FY19. In COP19, PEPFAR will continue to provide a prevention service package to approximately 13,354 prison inmates in 19 prisons across scale-up and sustained districts. Sustained districts were included because the risks of HIV for prison inmates (e.g., situational MSM) are the same regardless of geographic area. Services provided at entry, incarceration, and exit include comprehensive screening and treatment for HIV, TB, STI, nutrition, and mental health. PEPFAR has also introduced VMMC in Lilongwe and Blantyre, which contain Malawi's largest prisons. Advocacy for condom and lubricant provisions in prisons continues, though commodities are not currently provided

#### **4.2.5 Voluntary Male Medical Circumcision**

The GOM continues to prioritize VMMC as part of its biomedical prevention strategies as shown in the revised National HIV Prevention Strategy (2018-2020). The National VMMC Scale-Up Strategy (2015-2020) guides the national implementation of the VMMC program. For the last six years, PEPFAR provided technical assistance to the GOM and facilitated the majority of VMMC, achieving 557,183 out of 699,183 circumcisions nationwide. In COP18, Malawi received \$16 million for continued VMMC scale-up in the eight districts to reach a target of 145,337 circumcisions. In COP19, PEPFAR will maintain program investments in the eight priority districts and expand to three districts formerly supported by the World Bank, leveraging Global Fund resources for commodities to reach a target of 206,398 circumcisions, 70% of which will be men 15-29 years.

After the World Bank's VMMC resources supporting 20 districts ended in September 2018, PEPFAR Malawi worked with its ISME leads to maximize the impact of the VMMC evidence-based intervention on the epidemic. The previous HQ visit to Malawi reviewed how to utilize existing and emerging COP resources to accelerate saturation. The team looked at multiple scenarios with numerous stakeholders including the Ministry of Health, civil society, and other entities, to establish a prioritization to reach saturation (80%) to maximize the impact in a three-year time period. It was agreed that PEPFAR will support campaign activities in three former World Bank supported districts (Balaka, Machinga, and Mangochi to reach 80% saturation) while the other PEPFAR supported districts will reach saturation in the next two to three years. Blantyre, a key focus district for HIV prevention and treatment, will reach 68% saturation for 15-29 year age group in FY20. The Malawi team will utilize recency data to better target both treatment and primary prevention efforts in Blantyre. This will also be tracked on a bi-weekly basis as part of PEPFAR Malawi's enhanced monitoring plan to maximize impact on the epidemic. Districts not supported

with PEPFAR VMMC resources have the capacity to provide VMMCs with staff trained under the World Bank grant. However, commodity availability can be a challenge.

The updated Decision Maker's Program Planning Tool (DMPPT 2.0) data shows that at the end of FY19, only three districts will have above 60% VMMC coverage in the 15-29 age band. PEPFAR will therefore continue to support the VMMC priority districts to achieve saturation beyond FY20 and use the DMPPT 2.0 and the upcoming MPHIA data to inform future VMMC programming and targeting.

The VMMC program continues to gain momentum in the country and the number of annual circumcisions is still rising. In FY18, 138,183 circumcisions were performed across PEPFAR supported districts. Increased number of VMMC providers, community mobilizers, and mobile and static sites and consistent demand creation activities contributed to the high number of circumcisions. FY19 Q1 results show a 50% increase in results achieved compared to FY18 Q1 with 74% in age pivot attainment. These results demonstrate the effectiveness of the strategies set at the beginning of FY18 to address demand creation challenges and seasonality of VMMC. In FY18, the Headquarters team led an interagency external quality assessment (EQA) of the VMMC program, and results showed that the program is of high quality with highly motivated teams and excellent community-based demand creation at all sites. Each site developed a site improvement plan based on key issues raised from the EQA and the PEPFAR teams periodically follow-up with the implementing partners.

In COP19, PEPFAR will procure 64,000 reusable kits as part of a VMMC scale-up; use of human centered design for demand creation with some preparatory work will start in FY19; and scale up use of the HTS screening tool for 10-19 year olds and HIVST will occur as needed. In COP19, PEPFAR will scale up additional innovations for referring men from other service delivery points like STI clinics and HIV testing service delivery points to more sites.

Two WHO prequalified VMMC devices (PrePex and Shang Ring) have undergone successful acceptability and feasibility pilot studies in Malawi. MOH leadership endorsed Shang Ring and 4,000 circumcisions are planned for FY19. In COP19, PEPFAR and the Ministry of Health will scale up ShangRing implementation to all priority districts with over 20,000 kits procured through Global Funds resources. GF will also procure single use kits while PEPFAR will procure reusable kits, essential consumables and medicines for VMMC.

Key COP19 activities will include:

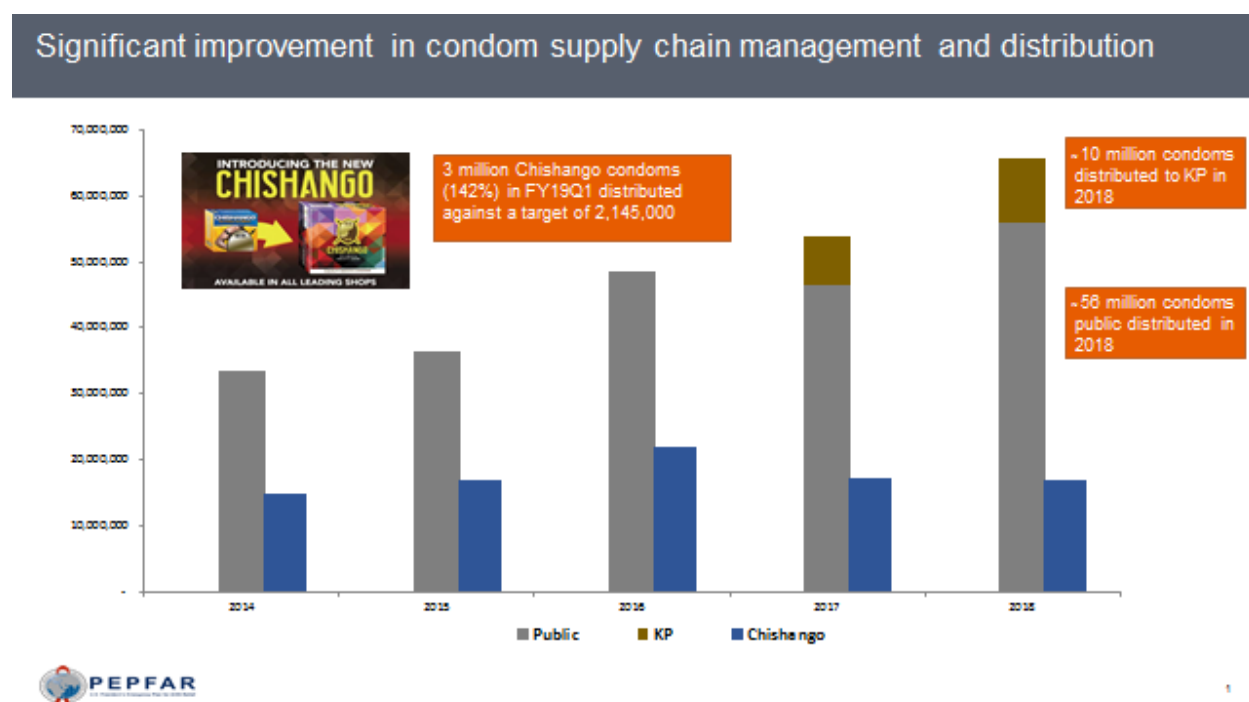
- Scale to an additional three districts previously covered by the World Bank utilizing additional commodities provided by the Global Fund through grant optimization.
- Scale-up use of human centered design for VMMC communication and demand creation;
- Scale-up use of a screening tool for HIV testing for boys aged 10-19 accessing VMMC services;

- Scale-up implementation of the Shang Ring device after active surveillance is complete in FY19;
- Linkage to treatment for men testing HIV positive in VMMC setting,
- Linking HIV negative males to VMMC services through collaboration between testing and treatment partners and VMMC partners. High-risk setting like STI clinics will be prioritized;
- Improve the intensive care unit for one of the referral hospitals to manage tetanus cases, in collaboration with MOH; and,
- Provision of integrated male-friendly services in selected VMMC static sites, e.g., general medical examination, STI screening and treatment, HIV self-testing, and sexual and reproductive health services.

#### 4.2.6 Condom Programming

Reinvigorating condom programming as a core HIV prevention intervention is a national priority. Within the NSP, strategies include an emphasis on a total market approach for comprehensive condom programming and effective and efficient supply. The NSP modeled the annual need of condoms across Malawi at 280 million condoms, using traditional and non-traditional platforms targeting all sexually active men and women, youth, and key vulnerable populations.

**Figure 4.2.5 Condom distribution in 2018**



The majority of public sector male condoms are procured, warehoused, and distributed to healthcare facilities by the MOH using Global Fund and UNFPA resources. Recent reports from

Logistics Management and Information System (LMIS) show a significant improvement in condom supply chain management and distribution as evidenced by an increase in annual condoms distributed, as seen in Figure 4.2.5. Nevertheless, condom availability and access and stigma associated with male and female condoms remain challenges among priority populations. Public sector male condom distribution increased from 53,863,105 in 2017 to 65,647,480 in 2018 largely due to PEPFAR support to increase the availability of condoms among KPs. However, public sector female condom consumption dropped to 375,024 from 416,067 in 2017.

In COP16, PEPFAR facilitated the establishment of a dedicated supply chain of public sector condoms and lubricants (single-use packaging) to key populations and community partners to reduce stock outs for these priority populations. In COP19, PEPFAR will continue to provide support for strengthening the condoms and lubricants supply chain. In addition to supporting community-level distribution of public sector condoms and lubricants, PEPFAR also supports the procurement and distribution of socially marketed CHISHANGO male condoms and CARE female condoms. In 2018, 16,924,660 CHISHANGO condoms and close to 70,000 CARE female condoms were sold. PEPFAR procured and distributed 1,127,474 lubricants in 2018, up from 761,535 in 2017.

PEPFAR will utilize USAID's Central Commodity Fund to procure socially marketed condoms and public-sector female condoms. The Global Fund and UNFPA procurements are expected to meet public sector condom requirements for free distribution in FY19 and FY20. Intensive demand generation activities at national and community levels will seek to increase demand for male and female condoms and lubricant among key and priority groups.

In COP19, PEPFAR will continue to champion a total condom market approach through current and new implementing partners, mapping of condom distribution points and agents, technical assistance to operationalize national condom policy and strategy documents, and sharing of best practices for condom planning, programming, and monitoring, through public, private, socially marketed sectors, and community distribution. PEPFAR will continue working with the GOM to strengthen supply chain management for procured public sector condoms and condom compatible lubricants.

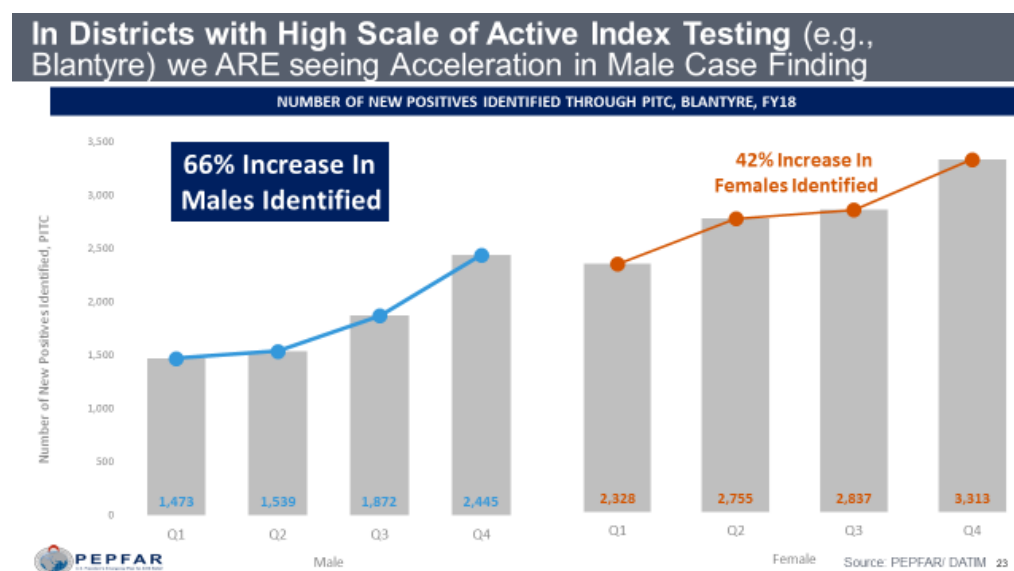
### **4.3 Additional Country-Specific Priorities Listed in the Planning Level Letter**

#### **4.3.1 Recent Policy and Guidance Changes**

##### **Optimized HTC**

**VAPN Scale-up:** Malawi continues to over-test, with case finding and yield of new positives declining. Active index testing is a scalable, high-yield, acceptable, and efficient strategy to reach those who have not been diagnosed (especially youth and men). On December 7, 2018, the MOH approved the active index testing policy. Following MOH approval, PEPFAR is scaling up this intervention to all DSD facilities and community sites in the 10 scale-up sites for COP18. Nation-wide scale-up in COP19 is planned.

**Figure 4.3.1 Districts with High-Scale of Active Index Testing, Acceleration in Male Case Finding**



**Oral HIV self-testing scale-up:** On December 7, 2018, Malawi approved the use of Oral HIV Self tests for nation-wide implementation. Scale-up plans in the 10 scale-up districts are in progress with nation-wide scale-up planned in COP19.

**Use of a screening tool in low yield facility testing entry points such as OPD:** The national task force is reviewing a variety of screening tools to identify a screening tool that could work to reduce over-testing in low-yield facility settings, especially out-patient department (OPD), which is largely captured under the “Other PITC” gateway in the data pack and DATIM targets. The goal is to validate the screening tool using available data (e.g., MPHIA) in COP18, and bring to scale a well-designed and suitable tool that maximizes both sensitivity and specificity. Scale-up would start in COP18, with continued scale-up in COP19.

## Improved retention

**Expert Client Intervention:** Starting in COP18, and achieving nation-wide scale in COP19, IPs need to ensure usage of standardized SOP’s and tools that facilitate the interactions between the expert client and the newly diagnosed client. Standardization of these SOPs and regular review of results ensures implementation of an evidence-based case management approach. Improved Expert Client interventions are responsible for both linkage to ART and retention of clients, including starting ART through the first six months of therapy. These interactions between the expert clients and newly diagnosed clients should include face-to-face counseling sessions, emphasizing the importance of early ART and retention, facilitating active index testing, providing follow-up support calls, sending appointment reminders, and facilitating back-to-care tracing. Expert clients should escort new clients during their first facility visit, with expedited registration, and treatment navigation services during the first 6 – 12 months of ART. These interventions should result in high

linkage to ART (>95%) and very high retention within the first six months of starting ART ( $\leq 1\%$  loss to follow-up).<sup>30</sup>

Additionally, PEPFAR Malawi continues to review and analyze HRH data to refine, standardize and improve the roles and remuneration of health care workers and lay cadres and the impact they have on the program. From the last round of HRH data collection, a large number of Expert Clients who are full time are paid a salary (n= 511). Some partners have part-time Expert Clients who receive part-time payment at a daily rate (n=727) and a smaller number receive non-monetary incentives (n=216). Going forward, PEPFAR will review contracts and ensure that staff paid part-time are only working part time and all staff who work full-time are fairly compensated for their work. Overall, the use of part-time staff will be reviewed for impact. In addition, partners will be requested to transition Expert Clients receiving non-monetary incentives to salary.

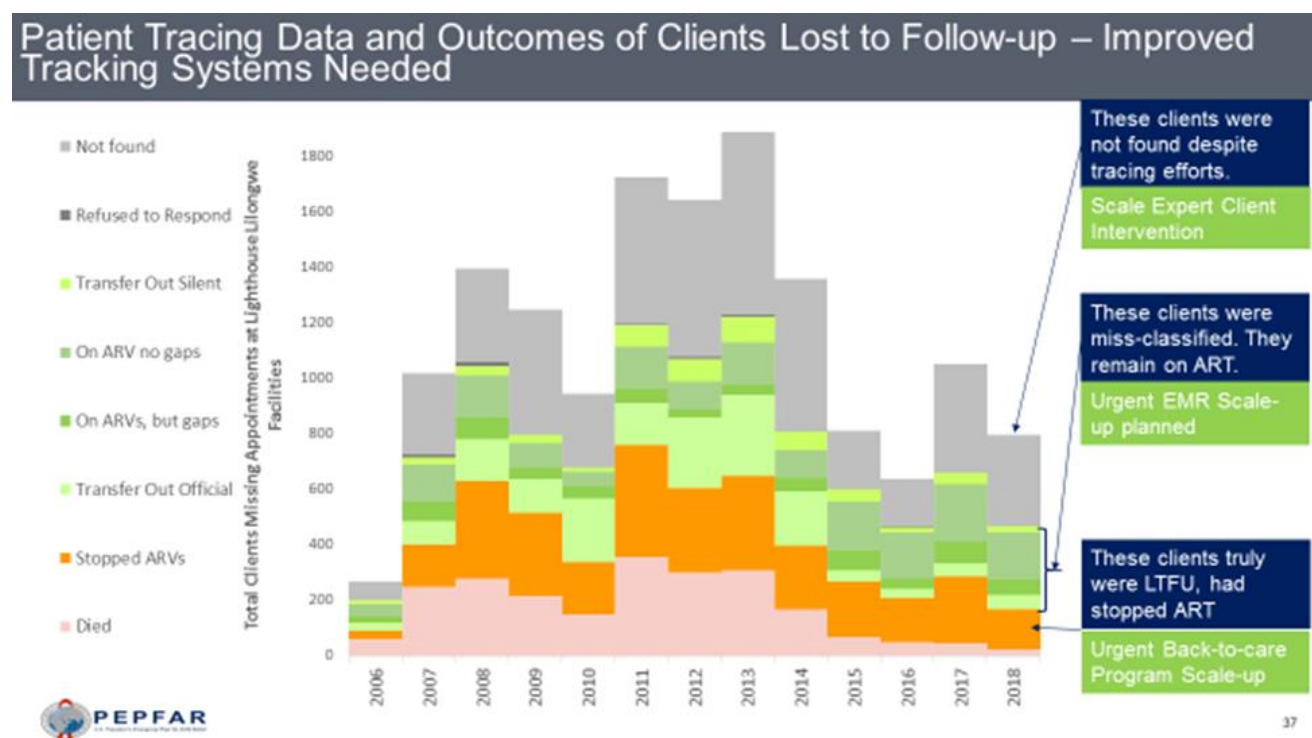
**Back-to-Care program:** Since 2006, some IPs have implemented tracing of clients lost to follow-up at some facilities, achieving some success. More recently, IPs have used missed appointments as an earlier trigger. Currently, about 75% of clients who have stopped ART and then found are returned to ART. Improvements in the Expert Client intervention (described above) and the EMRS scale-up plan will also help implement the back-to-care program and ensure each site has accurate data on who needs to be traced due to a missed appointment.

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<sup>30</sup> Mackeller et al, MMWR, 2017, Malawi, Swaziland, Tanzania; Auld et al, CROI 2018. Effect of TB Screening and Retention Interventions on Early ART Mortality. Available at: <http://www.croiconference.org/sessions/effect-tb-screening-and-retention-interventions-early-art-mortality-botswana>

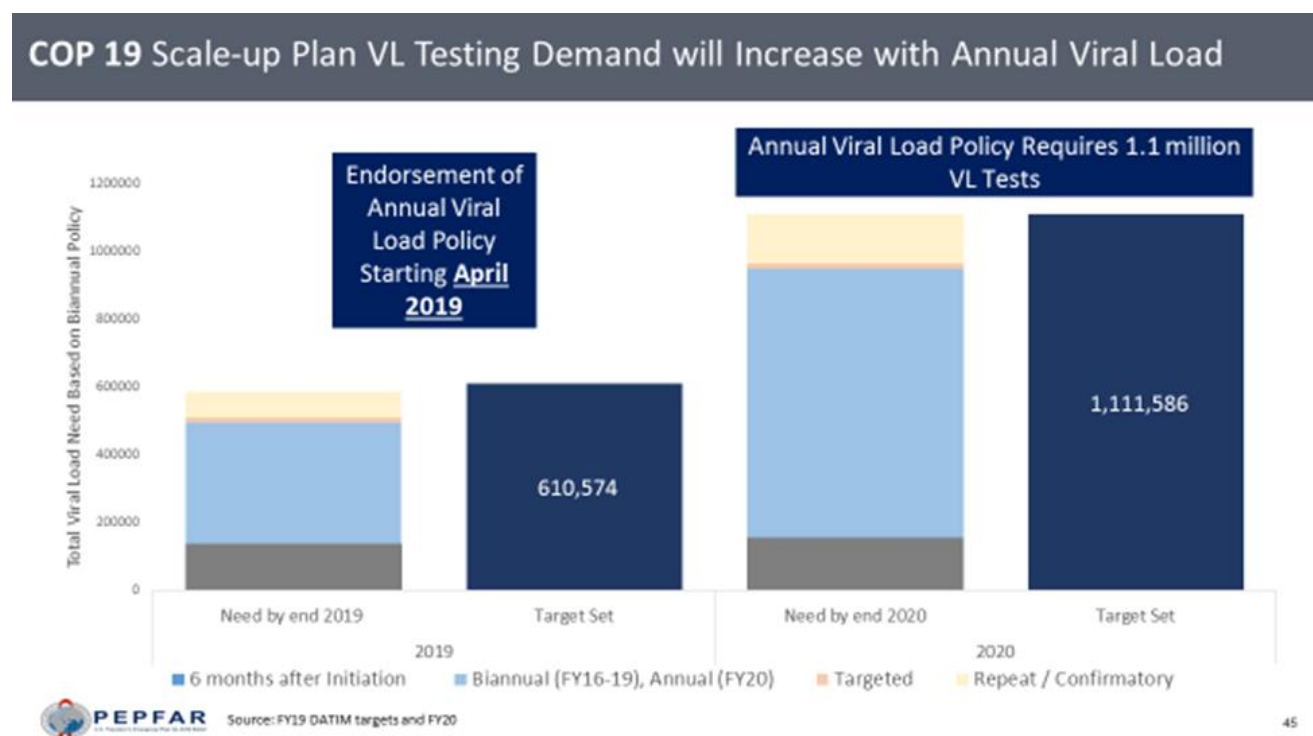


**Figure 4.3.2 Patient Tracing Data and Outcomes of Clients Lost to Follow-up (LTFU)**



**Annual Viral Load Implementation and Use of the Results:** Given excellent performance against viral load volume targets, and the evidence base supporting the need for an annual viral load since the release of the 2013/2014 WHO guidelines, MOH approved an annual viral load policy for implementation starting in April 2019 onwards. This will result in a substantial increase in the required volume of viral load tests implemented in COP19 (see below).

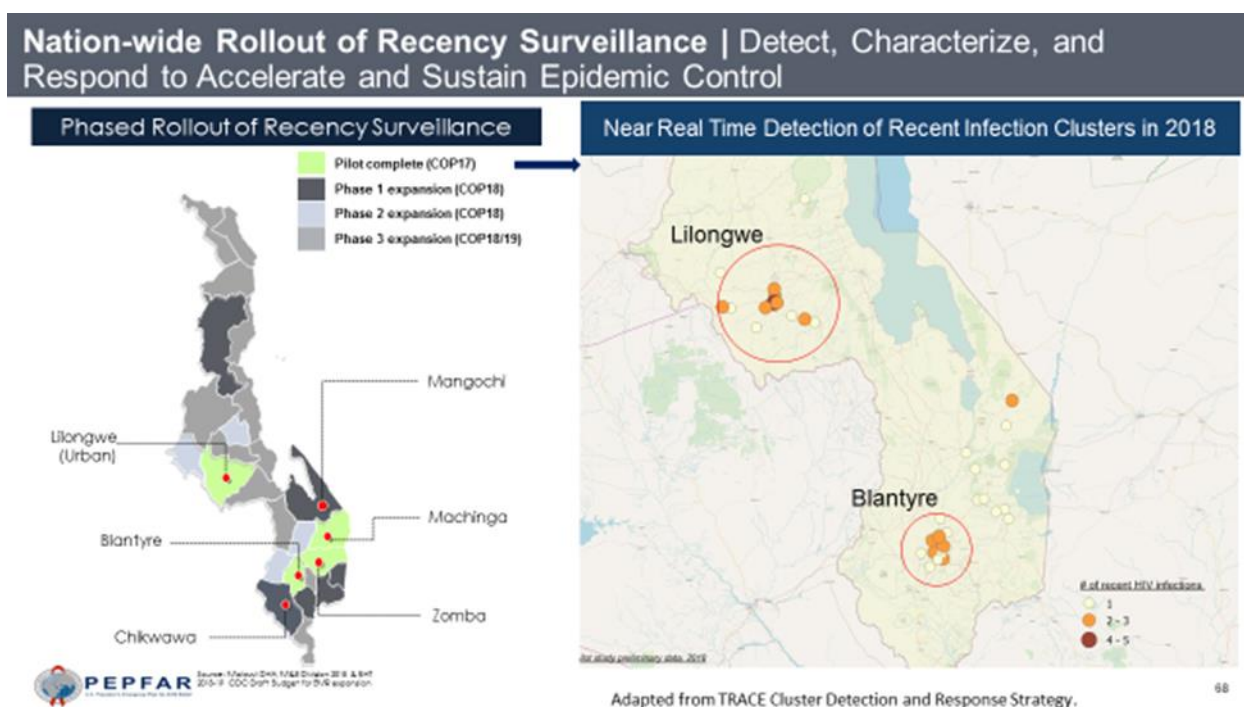
**Figure 4.3.3 COP19 Scale-up Plan – VL Testing Demand will Increase with Annual VL**



In addition, significant strengthening of the cascade is needed to ensure that health care workers returns viral load results to the clients living with HIV and informs them of their optimized care. PEPFAR plans these investments through increased HRH investments, optimized HRH management, better data systems and better supervision.

**Recency Expansion:** During the COP approval week, The MOH approved recency for scale-up to inform programmatic response efforts. The scale-up plan is indicated in the figure below, with nation-wide recency surveillance in place by September 2020. This nation-wide surveillance will allow detection of clusters of recent infection, characterization, prioritization, and response, with guidelines adapted from the TRACE Cluster detection and Response Strategy. All populations  $\geq 13$  will be targeted for recency testing as it is integrated into the HIV testing algorithm.

**Figure 4.3.4 Nation-wide Rollout of Recency Surveillance**



**PrEP:** MOH incorporated PrEP into the National Guidelines in December 2018, allowing for rapid implementation and scale-up of PrEP services for high-risk AGYW, newly identified sero-discordant couples, and key populations. National Oral PrEP Task Force leads the efforts to initiate the national roll-out. The PEPFAR strategy aligns with these efforts. In FY19, MOH added provision of PrEP to high-risk population groups to the HIV prevention strategy policy. This policy allows for a rapid roll-out of PrEP service delivery as a key component of the PEPFAR HIV prevention strategy. The COP19 PEPFAR PrEP strategy includes targets for FSW, MSM, and high-risk AGYW, and sero-discordant couples (particularly for those where one partner is newly identified and PrEP is to be used during the six months prior to viral suppression or another designated period of time if suppression is not achieved). Details on PrEP delivery are included throughout the document in alignment with the targeted population groups as PrEP is one component of the prevention toolkit. The PEPFAR team prioritized DREAMS districts for roll-out of PrEP for AGYW. Six districts will have programming for all three population groups, applying lessons learned from other countries related to stigma and uptake of services. Partners will use screening tools and protocols to assess PrEP eligibility for potential candidates for PrEP within these populations. As the current policy does not permit ART initiation at the community-level, community PrEP initiation is dependent on further discussions and advocacy with the Ministry of Health. Current targets, however, remain with the community partners reflecting the source of client identification, referral to facilities for provision of PrEP, and follow-up.

#### 4.3.2 Decision on Program Direction

**Key Population Target Setting:** As part of the cascade, all KP implementing partners will focus on linking those “reached” through the KP\_PREV indicator to testing and ensure ART initiation, tracking VL coverage and suppression of all HIV infected beneficiaries. The Malawi KP program uses a mix of available data from PLACE I and II, ongoing hotspot validation exercises, and the BBSS 2012 to inform the targeting process. PLACE I data was collected in Blantyre, Lilongwe, Mzuzu, Mangochi, Zomba, and Machinga while PLACE II data focused on Mzimba, Chiradzulu, Chikwawa and Mwanza. Hotspot validation data for FSW was available for the following districts: Blantyre, Lilongwe, Mzuzu, Mangochi, Zomba, and Machinga. According to the BBSS national data, the FSW HIV prevalence was 63%, MSM 18%, and prisons were 13%.

The PEPFAR team determined COP19 targets using the following overarching assumption: 95% of eligible people were tested, 95% of tested positives were linked to treatment, and 95% of those were virally suppressed. For the KP\_PREV indicator, we targeted 95% of the population size estimates for both FSW and MSM and 100% for prisons. The program will identify the proportion of all the KP reached who already know their status. For those who are negative, the program will determine the date of their last negative test to decide if they need to be re-tested. HDAs will link those who are still HIV negative to HIV preventive services including PrEP (30% of FSW while there was a 10% uptake for MSM). For the KP reached who are HIV positive, the program will determine their ART status and follow-up to make sure they are retained in care and VL suppressed.

**GBV:** Recognizing the poor performance in GEND \_GBV in FY18, due to a low uptake of services (5.9-9.6% of males and females respectively who sought help after experiencing sexual violence in childhood according to the VACS) and limited awareness of post-GBV care, COP19 will establish a holistic package to prevent and respond to GBV. PEPFAR supports this holistic package through DREAMS activities, OVC programming, and FBO engagement activities. Strong active linkages are key to providing an effective GBV prevention and response package. Although prevention efforts are a COP19 priority, given the high prevalence of GBV in Malawi, the PEPFAR team recognizes the importance of providing space and structures to respond to GBV as the USG implements more conversations and interventions to address and build awareness surrounding sexual and gender-based violence. This package will reduce incidence and prevalence of violence in Malawi, ensuring that those who have experienced violence have access to and receive comprehensive post-GBV care, acknowledging the link between GBV and HIV risk and poor adherence to treatment/access to care.

The sexual and gender-based violence prevention and response package includes community outreach and mobilization (demand creation efforts), facility-level interventions to improve/increase service provision (including routine inquiry), building provider capacity to deliver quality services, engagement of the faith community in implementing evidence-based HIV and sexual violence prevention programming with training of faith leaders, gender norms changing activities, and collaboration with EngenderHealth and the Spotlight Initiative.

In COP18, the DREAMS program continues to increase the number of health care providers trained in post-GBV care and incorporate GBV modules into existing programming to ensure boys and girls receive essential messaging related to sexual violence prevention. COP19 programming will build off these efforts, using data-to-action strategies to inform future provider/staff trainings, working on how to improve reporting of the GEND\_GBv indicator, ensuring high quality of post-GBV services, assessing barriers and facilitators to increase post-GBV services, and actively responding to cases of GBV in four districts (Blantyre, Lilongwe, Zomba, and Machinga). COP19 priorities include demand creation and awareness building among youth, community members, and faith leaders, as well as capacity-building across partners to strengthen data collection and reporting, and health care provider capacity building.

In addition to ensuring high-quality post-GBV care as services are scaled-up and awareness-building activities are implemented, the PEPFAR team will continue to engage government stakeholders and faith/traditional leaders, using data from the VACS and existing programming. One approach includes the implementation of a violence prevention tracking system through the FBO initiative. As GBV is an outcome of inequitable and harmful gender norms, there may be pockets of higher rates of GBV at the community level. By establishing a system of tracking GBV cases and adapting strategies from index testing and outbreak response, partners can target programs related to GBV prevention and response to have the highest impact. Engaging with faith and traditional leaders is a crucial step in building awareness of post-GBV care, developing a critical consciousness regarding GBV, and changing gender norms that contribute to the risk of both GBV and HIV, as these leaders are often the most trusted individuals responsible for disseminating messages within communities. Implementing partners will use data collected through regular monitoring at the facility and/or community level to advocate for prevention efforts and work through potential solutions with key stakeholders.

Although perpetrators of violence can often be parents, the Malawi VACS data illustrated that perpetrators of the first incidence of sexual violence were more often intimate partners, schoolmates, neighbors, and friends. Therefore, in COP19, efforts will focus on engaging parents, caregivers, and families as key stakeholders in GBV prevention and response, a component recognized in the INSPIRE<sup>31</sup> package. Additionally, considering the high rates of perpetration self-reported by males, and the reports of common perpetrators outlined in the VACS, the PEPFAR team plans to focus on both community-level gender norms changing activities (such as SASA! Faith trainings) that target communities and leaders, as well as youth themselves (IMPower).

EngenderHealth will continue GBV prevention and response activities in Blantyre and UN Women will begin implementing the Spotlight initiative in Malawi. GBV prevention and response activities

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<sup>31</sup> A shared document of seven strategies to end violence against children – stakeholders include WHO, CDC, PEPFAR, UNICEF, World Bank, UNODC, Together for Girls. The INSPIRE acronym translates: Implementation and enforcement of laws; Norms and values; Safe environments; Parent and caregiver support; Income and economic strengthening; Response and support services; Education and life skills.

aim to complement existing programs to strengthen the overall GBV programming and response systems across the country.

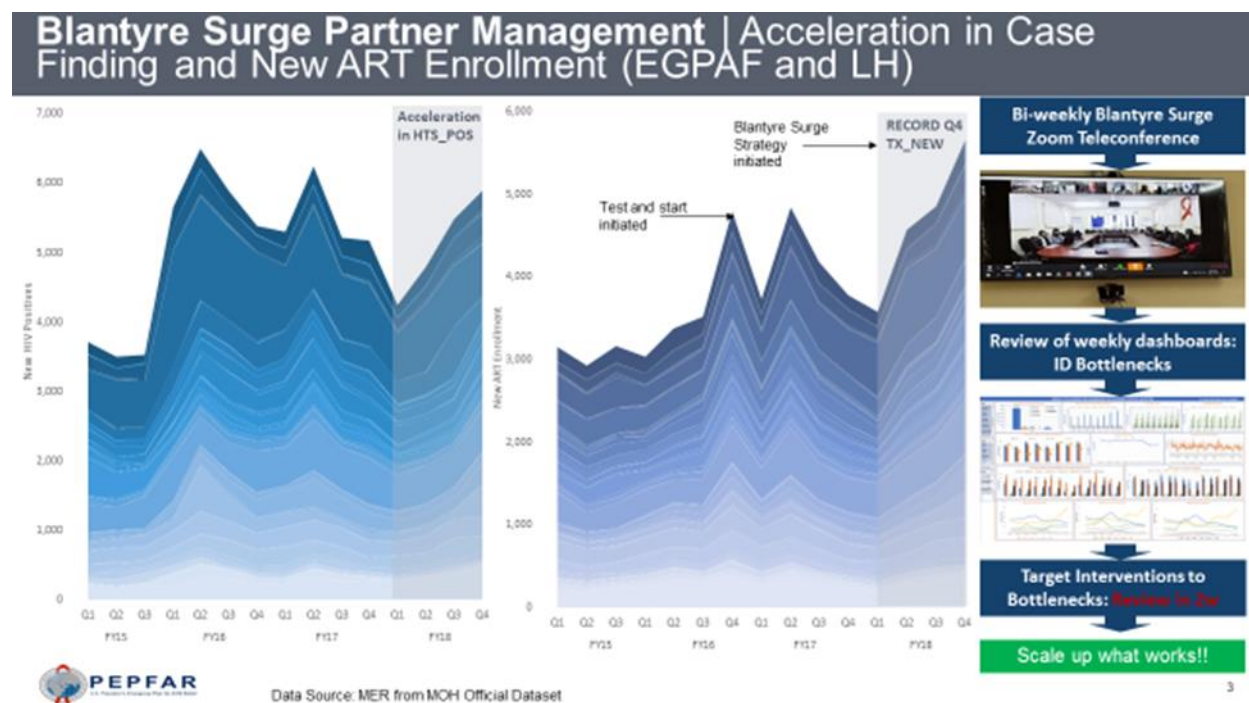
#### **4.3.3 Implementing Partners Alignment with PEPFAR Program Strategy**

PEPFAR Malawi has continued to strengthen implementer management strategies to improve performance and ensure alignment with PEPFAR strategies. Where these are unsuccessful, PEPFAR will shifting implementers to ensure results for those living with HIV or at increased risk of HIV transmission. Highlights of these strategies include the following lessons learned:

- Frequent review of progress at partner and site level: For clinical service delivery partners, monthly and bi-weekly reviews of data with USG agencies facilitated early identification of challenges and joint problem solving. Through implementation of standard data dashboards of key indicators including HTS\_TST, HTS\_TST\_POS, and TX\_NEW, partners improved site-level monitoring of program trends. This improved visibility of data supported site-level staff to make course corrections in patient flow, staffing capacity, and documentation, as well as enabled program managers to implement broader programmatic adjustments across sites. Bi-weekly reviews using a standard dashboard were successful in achieving the desired accelerations (e.g., Blantyre Surge Strategy). However, for certain partners (e.g., the EMRS partner) weekly or even daily review of progress was necessary.
- Clear communication forums: PEPFAR Malawi uses video conferencing platforms that are logistically easy and allow sharing of information across partners. The video conferencing platforms allow the Ministry of Health, participants from all U.S. Government agencies, clinical partners, and key sites (e.g., district referral hospitals like the Umodzi family center in Blantyre – see Figure 4.3.3 below) to join the conversation. For the Blantyre Surge partner management strategy, bi-weekly video conference calls through the ECHO platform were implemented.
- Focused remediation: Focus the remedial actions to a few key bottleneck issues (usually one to three bottlenecks are addressed at one time) for partners to address, rather than come up with an excessively long list of issues for partners that must be addressed within only a couple of weeks. The availability of site-level data facilitates more targeted mentoring interventions. Site or district-based mentors are able to tailor the frequency and focus of mentorship efforts to site-level challenges based on evolving issues.
- Scale across sites: Quickly scale-up what works to achieve the required scale and acceleration. These interventions include programmatic adjustments, such as implementation of early/late hours in HIV testing services or viral load audits as well as management solutions at site and district-level, such as shifting human resources between sites and intensifying oversight processes at site-level.
- Integrated use of SIMS and MER data: In COP18, the USG team is working to better utilize MER performance data to prioritize SIMS visits. USG staff are also working to utilize these

SIMS visits to observe patient-provider interactions to monitor fidelity of key or new interventions, such as index case testing and site level human resource distribution.

**Figure 4.3.3 Blantyre Surge Partner Management**



These lessons learned are being applied to all scale-up districts in COP19. Engagement of MOH at central and district levels in the Blantyre Surge Strategy has been key to achieve scale and partnership of the key program donors (like GFATM and PEPFAR).

#### 4.3.4 Innovative, Evidence-based Solutions for COP19

A summary of the over-arching epidemic control plan is provided in Figure 4.3.4 below and are discussed in detail throughout this document.



# COP 19 | Updated Epidemic Control Plan

*Where*

**National Reach for Sustained Response with Enhanced Programming in 11 Districts**

| Who  | What  |
|--|---|
|  | <p><b>1 Intensify Case Finding Strategy with Updated Policy Implementation</b></p> <ul style="list-style-type: none"> <li>Index Testing scaled nationally with fidelity</li> <li>HIV Self Testing to find those not coming to the clinic</li> <li>Screening tool for testing entry points to target those most at risk and all pregnant women</li> </ul>  |
| <p>100% of New Positives</p>                         | <p><b>2 Maintain High Linkage and Focus Back to Care Programming</b></p> <ul style="list-style-type: none"> <li>Comprehensive adherence counseling and treatment literacy</li> <li>HDA &amp; Expert Client optimization</li> <li>TB Preventative care</li> </ul>  |
| <p>100% People Living with HIV transition to TLD</p> | <p><b>3 Strengthen Cascade and Scale up Annual Viral Load</b></p> <ul style="list-style-type: none"> <li>Comprehensive adherence counseling and treatment literacy (T-T)</li> <li>Differentiated Service Delivery models (6 monthly refills)</li> <li>Support groups with evidence based strategies to ensure adherence and health, including engagement of Faith &amp; Community Leadership</li> </ul> |
|  | <p><b>Reduce HIV Transmission</b></p> <ul style="list-style-type: none"> <li>Key Populations comprehensive care &amp; prevention services</li> </ul> <p><b>Born Free – Eliminate MTCT</b></p>   |
|  | <p><b>2 Stay Free</b></p> <ul style="list-style-type: none"> <li>FBO &amp; Community leadership in HIV</li> <li>Prevention and ending violence (9-14)</li> <li>VMMC</li> <li>DREAMS, including GBV</li> <li>PrEP</li> <li>Condoms</li> </ul>  |

**AIDS Free | Epidemic Control in Malawi**

Sustain progress through active surveillance (Recency\*, EMRS), supportive supervision and critical health system inputs (HRH, HMIS, Supply Chain) for a robust Ministry of Health led and inclusive response

Core components of PEPFAR Malawi's active index testing scale-up strategy include:

- PEPFAR will continue these strategies throughout COP19, in close collaboration with the Government of Malawi and partners.

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will be: (a) the circulars from the Minister of Health, and (b) the regular review of partner data to ensure the interventions are being brought to scale with fidelity.

#### **4.4 Commodities**

The majority (over 90%) of key HIV/AIDS commodities are procured through the Global Fund grant. MOH manages this effectively (with support from PEPFAR-funded technical assistance), providing consistent availability of commodities. In COP18, PEPFAR supported quantification and supply planning of HIV/AIDS commodities and procurement of Oraquick self-test kits (\$450,000), lab reagents (\$805,010), VMMC commodities (\$2,906,740), condoms, and lubricants (\$1,419,700) for key populations. PEPFAR will leverage USAID's Commodity Fund and will continue to fund Malawi's lubricant needs, socially-marketed condoms, and female condoms to prevent gaps in condom supplies

**DTG Transition:** Malawi will transition to TLD and DTG-based formulations starting in January 2019 after the pilot that began in mid-2018. PEPFAR will support the country's complete transition to DTG, including women of childbearing age. Malawi plans to scale up transition of all eligible PLHIV with a goal to reach 90% of the PLHIV cohort on DTG containing regimens by January 2020. PEPFAR will ensure that MOH does not procure or use NVP containing formulations (except for PMTCT) from September 30, 2019. Following phase-out of Nevirapine-based adult and pediatric formulations, PEPFAR will support safe disposal of all remaining Nevirapine-based formulation. In COP19, PEPFAR will continue supporting quantification, supply planning, and monitoring of stock availability of TLD and other HIV commodities to avoid stock outs, overstocks, and expirations. PEPFAR will support the country to optimally use Global Fund resources to ensure seamless transition and availability of HIV/AIDS commodities. PEPFAR will also support the implementation of multi-month prescriptions and the transition to 90-pills per bottles for around two-thirds of PLHIV considered stable PLHIV.

The last order of TLD in Malawi was made in mid-2018, following the WHO and PEPFAR guidance during that time. No additional TLE orders have been made since in order to maximize the speed of DTG transition. The PEPFAR team continues to work closely with the Ministry of Health, clinical implementers, and civil society to accelerate the transition to DTG. Following the March 7 policy decisions in Johannesburg during the COP19 meeting, the PEPFAR team ensured the procurement plan for DTG reflected new policies, including six month refills, to further accelerate transition. This is monitored through the bi-weekly monitoring plan as well as quarterly sit visits, inclusive of ensuring adequate DTG stock levels in facilities.

#### **4.5 Collaboration, Integration and Monitoring**

The PEPFAR Management Team, with leadership representation from the PEPFAR Coordination Office and USG agencies, is the main decision-making body and meets frequently with the Chief of Mission and Deputy Chief of Mission. Five interagency TWGs serve as fora for coordination, priority setting, strategy development, and performance management across PEPFAR implementing agencies.

PEPFAR Malawi works closely with the MOH (including the Department of HIV and AIDS, National TB Program, Diagnostics, Quality Management Department, National AIDS Commission and others) through participation in various national technical working groups and direct engagement with key MOH staff to provide technical support in the review of policy and national guidelines. In 2018, this collaboration and engagement, which spans across the clinical cascade and primary prevention, resulted in the development of national guidelines on HIV self-testing, clinical management of advanced HIV in adults and children, and a revised national HIV prevention strategy. The PEPFAR USG team and its implementing partners are also currently heavily engaged in development of national standard operating procedures and monitoring tools for active index case testing, PrEP, annual viral load and implementation of six-monthly refills in order to rapidly scale these approved implementation modalities. PEPFAR continues to support the GOM national quarterly supportive supervision site visits, resulting in site-level data validation and physical inventories of essential HIV commodities to inform quantification and forecasting, and prevent stock outs.

In terms of improving quality and efficiency of service delivery through improved models of care, the program will implement differentiated service delivery models that will improve the quality of HIV services. Extending the current three-monthly scripting to six-monthly should help decongest busy health facilities and allow health care workers to spend more time with sick PLHIV. Malawi will introduce a comprehensive package of services for advanced HIV care in Cop18 (or as soon as commodities are available from the Global Fund reprogramming request submitted in January). In addition, PEPFAR is expanding the teen club model, which is a facility-linked community approach, to provide a standardized package of services to adolescents who have unique challenges with adherence.

The PEPFAR team closely monitors the Global Fund grant implementation for TB/HIV to ensure PEPFAR and Global Fund priorities are well aligned. PEPFAR also engages with district-level management staff to ensure performance concerns are addressed collaboratively. In FY18, PEPFAR Malawi consistently engaged MOH, civil society, and faith-based organizations to review progress towards COP targets. As part of COP19 development, PEPFAR Malawi held multiple consultations with stakeholders, including MOH, NAC, civil society, faith-based organizations, bilateral and multilateral development partners, and implementers to set COP priorities. PEPFAR will maintain this critical platform for dialogue and reflection throughout FY19 and FY20 implementation.

Partner performance management is central to PEPFAR Malawi's goal of reaching saturation and achieving epidemic control. The interagency PEPFAR team is developing a more rigorous monitoring framework to track the speed of scale-up of critical interventions with fidelity at site level (i.e., index case testing, self-testing, TLD transition, and annual viral load implementation) which will include collection, review, and provision of feedback to implementing partners on select indicators on a biweekly basis.

In COP18, PEPFAR continued to address facility-level infrastructure bottlenecks through the installation and construction of an additional HTC, ART, pharmacy units, and HIV/AIDS clinics.

More specifically, in COP18, PEPFAR successfully completed installation of 79 HTC/ART pre-fabricated units in 57 sites, 15 pharmacy-in-a-box units in 15 sites, and three HIV/AIDS clinics in three different sites in the high-burden districts of Lilongwe, Blantyre, and Zomba. This infrastructure installation almost doubles the HIV service delivery capacities from testing to treatment to pharmacy management at the supported high-burden sites. In COP19, PEPFAR will focus on monitoring efficient utilization of these new infrastructure inputs to improve program results.

In COP18, PEPFAR seconded technical assistants at national-level to strengthen and support implementation of the national HIV program. This support has proved critical and effective as MOH developed and implemented innovative policies, guidelines, and strategies that PEPFAR championed in COP 18 including, index case testing, data disaggregation, and TLD transition. In COP19, PEPFAR will continue to support secondments of technical assistants at the MOH Directorate of HIV/AIDS to ensure sustained gains and increased capacity of local counterparts.

In COP19, annual viral load monitoring and EID will be the focus areas for lab activities, including strengthening sample transportation systems, building the capacity of labs for VL/EID tests, quality assurance and quality improvement (QA/QI) for quality control, and implementing results reporting. PEPFAR will integrate viral load messaging into communication and demand creation strategies and will expect implementing partners supporting HIV case finding and linkage to treatment to support clients to know their viral load status (including programming targeting key populations).

To improve program monitoring and allow for rapid strategic shifts at the district and site-level, successful program implementation requires near real-time individual-level data. In COP19, PEPFAR will continue to focus on strengthening point of care information systems and electronic medical records, as well as the scale up of ongoing recency surveillance to improve quality of program data.

In COP18, the DREAMS program is developing a database to track and report on layering services to ensure individual AGYW are receiving the comprehensive package of services they need. This database will use a unique ID (primarily Malawi's national ID, including assisting a DREAMS beneficiary without a national ID to obtain one and issuing a DREAMS unique ID) to track the services delivered to AGYW across implementing partners. In COP19, taking advantage of the Malawi National ID obtained through the birth registration program, the DREAMS program will link its program data with EMRS data to ensure linkage to care for HIV positive AGYW. PEPFAR's key populations program also uses a unique ID to track services received by sex workers and men who have sex with other men across districts to ensure these vulnerable and mobile populations are receiving a comprehensive package of services to meet their needs. Given the sensitivity around key populations, the Malawi PEPFAR program will monitor the feasibility of using the Malawi National ID without risking the welfare of KP individuals or alienating them from the program.

PEPFAR is working with the Government of Malawi to provide a framework for assigning unique identifiers to individuals seeking care in Malawi's health facilities. PEPFAR has reviewed various models. Currently, the most functional model is to have facilities keep EMRS. With support from PEPFAR and technical assistance from Baobab Health Trust (BHT), the MOH built electronic architecture that has the ability to uniquely identify PLHIV and trace them as they move from one service facility to another to ensure continuity of care. The system provides a unique health identifier, generated centrally and distributed using the Demographic Data Exchange (DDE) module. PLHIV, therefore, continue to use a single unique health identifier for all their care. This system has been tested and is currently being scaled up to all sites that have EMRS. A major challenge remains with all sites currently using paper-based systems. Despite this challenge and as more facilities utilize right-sized EMRs, PEPFAR sees the use of National IDs as the best option since all Malawians have the potential of acquiring a National ID through the National Registration or birth registration systems. Linking the National IDs with the health IDs offers a better way of uniquely identifying PLHIV/clients, especially those that already have demographics data recorded in the system. Consequently, PEPFAR continues to advocate for national policy that demands National IDs in order to access health care in Malawi.

#### **4.6 Targets for scale-up locations and populations**

**Table 4.6.1 Entry Streams for Adults and Pediatrics Newly Initiating ART PLHIV in Scale-up**

| Table 4.6.1 Entry Streams for Adults and Pediatrics Newly Initiating ART PLHIV in Scale-up Districts |  |   |   |
|--|--|---|---|
| Entry Streams for ART Enrollment   | Tested for HIV<br><br>(APR FY20)<br><br><i>HTS_TST</i> | Newly Identified Positive<br><br>(APR FY20)<br><i>HTS_TST_POS</i> | Newly Initiated on ART (APR FY 20)<br><br><i>TX_NEW</i> |
| Total Men (15+)  | 656,932  | 58,922  | 54,706  |
| Total Women (15+)  | 967,046  | 37,161  | 35,225  |
| Total Children (<15)   | 223,009  | 7,828   | 8,482   |
| Total from Index Testing   | 169,046  | 36,781  | 34,942  |
| <b><u>Adults (15+)</u></b>   |  |   |   |
| TB PLHIV   | 7,693  | 1,272   | 1,208   |
| Pregnant Women   | 721,537  | 9,738   | 9,251   |
| VMMC clients   | 141,831  | 1,493   | 1,418   |
| Key populations  | 23,065   | 2,697   | 2,562   |
| Priority Populations**   | 8,959  | 1,352   | 1,284   |
| Other Testing  | 597,933  | 46,373  | 48,814  |
| Previously diagnosed and/or in care  | N/A  | N/A*  | N/A*  |
| <b><u>Pediatrics (&lt;15)</u></b>  |  |   |   |
|  |  |   |   |
| Other pediatric testing  | 223,009  | 36,781  | 34,942  |
| Previously diagnosed and/or in care  | N/A  | N/A   | N/A   |

\*We do not assume a proportion of the TX\_NEW population will come from previously diagnosed in the data pack

\*\*For priority populations, PEPFAR used the mobile testing modality as mobile testing is targeted towards PPs

**Table 4.6.2 VMMC Coverage and Targets by Age Bracket in Scale-up Districts**

| SNU          | Target Population | Population Size Estimate | FY19 VMMC Current Coverage (%) (DMPPT) | VMMC_CIRC (in FY20) | Expected VMMC Coverage (in FY20) (DMPPT) |
|--------------|-------------------|--------------------------|--|---------------------|--|
| Blantyre     | 15-29             | 185,386                  | 63%                                    | 31,103              | 68%                                      |
| Chikwawa     | 15-29             | 81,844                   | 53%                                    | 13,986              | 60%                                      |
| Chiradzulu   | 15-29             | 53,429                   | 56%                                    | 2,107               | 62%                                      |
| Lilongwe     | 15-29             | 385,114                  | 44%                                    | 46,106              | 53%                                      |
| Machinga     | 15-29             | 96,289                   | 65%                                    | 3,097               | 69%                                      |
| Mangochi     | 15-29             | 146,602                  | 66%                                    | 2,466               | 70%                                      |
| Mulanje      | 15-29             | 96,001                   | 55%                                    | 3,506               | 61%                                      |
| Phalombe     | 15-29             | 59,154                   | 55%                                    | 5,725               | 61%                                      |
| Thyolo       | 15-29             | 100,938                  | 57%                                    | 11,351              | 63%                                      |
| Zomba        | 15-29             | 119,105                  | 59%                                    | 5,188               | 64%                                      |
| <b>Total</b> | <b>15-29</b>      | <b>1,323,862</b>         | <b>57%</b>                             | <b>124,635</b>      | <b>63%</b>                               |

**Table 4.6.3 Target Population for Prevention Interventions to Facilitate Epidemic Control**

| District | Target Population                             | Population Size Estimate (scale-up SNUs) | Coverage Goal (in FY20) | FY20 Target |
|----------|---|--|-------------------------|-------------|
| Blantyre | FSW   | 4260                                     | 44%                     | 1862        |
|          | MSM   | 2274                                     | 74%                     | 1670        |
|          | People in prisons and other enclosed settings | 2000                                     | 100%                    | 2000        |

| District   | Target Population                                | Population Size Estimate<br>(scale-up SNUs) | Coverage<br>Goal (in<br>FY20) | FY20 Target |
|------------|--|---|-------------------------------|-------------|
|            | PP_PREV (AGYW)                                   |   |                               | 20429       |
| Chikwawa   | FSW  | 816   | 72%                           | 591         |
|            | MSM  | 571   | 80%                           | 457         |
|            | People in prisons and other<br>enclosed settings |   |                               |             |
|            | PP_PREV (AGYW)                                   |   |                               | 1813        |
| Chiradzulu | FSW  | 448   | 70%                           | 313         |
|            | MSM  | 216   | 80%                           | 173         |
|            | People in prisons and other<br>enclosed settings |   |                               |             |
|            | PP_PREV (AGYW)                                   |   |                               | 13          |
| Lilongwe   | FSW  | 5338  | 48%                           | 2556        |
|            | MSM  | 2916  | 75%                           | 2177        |
|            | People in prisons and other<br>enclosed settings | 4400  | 100%                          | 4399        |
|            | PP_PREV (AGYW)                                   |   |                               | 539         |
| Machinga   | FSW  | 910   | 51%                           | 463         |
|            | MSM  |   |                               |             |
|            | MSM not SW                                       |   |                               |             |
|            | People in prisons and other<br>enclosed settings |   |                               |             |
|            | PP_PREV (AGYW)                                   |   |                               | 33297       |
| Mangochi   | FSW  | 2468  | 48%                           | 1190        |
|            | MSM  | 607   | 71%                           | 432         |
|            | People in prisons and other<br>enclosed settings |   |                               |             |
|            | PP_PREV (AGYW)                                   |   |                               | 3833        |
| Mulanje    | FSW  |   |                               |             |

| District | Target Population                                | Population Size Estimate<br>(scale-up SNUs) | Coverage<br>Goal (in<br>FY20) | FY20 Target |
|----------|--|---|-------------------------------|-------------|
|          | MSM  |   |                               |             |
|          | MSM not SW                                       |   |                               |             |
|          | People in prisons and other<br>enclosed settings |   |                               |             |
|          | PP_PREV (AGYW)                                   |   |                               | 534         |
| Mzimba   | FSW  | 2995  | 64%                           | 1931        |
|          | MSM  | 872   | 72%                           | 627         |
|          | People in prisons and other<br>enclosed settings | 1283  | 100%                          | 1283        |
|          | PP_PREV (AGYW)                                   |   |                               | 962         |
| Phalombe | FSW  |   |                               |             |
|          | MSM  |   |                               |             |
|          | MSM not SW                                       |   |                               |             |
|          | People in prisons and other<br>enclosed settings |   |                               |             |
|          | PP_PREV (AGYW)                                   |   |                               |             |
| Thyolo   | FSW  |   |                               |             |
|          | MSM  |   |                               |             |
|          | MSM not SW                                       |   |                               |             |
|          | People in prisons and other<br>enclosed settings | 718   | 100%                          | 718         |
|          | PP_PREV (AGYW)                                   |   |                               | 211         |
| Zomba    | FSW  | 1471  | 61%                           | 901         |
|          | MSM  |   |                               |             |
|          | MSM not SW                                       |   |                               |             |
|          | People in prisons and other<br>enclosed settings | 3000  | 100%                          | 3000        |



| District | Target Population | Population Size Estimate<br>(scale-up SNUs) | Coverage<br>Goal (in<br>FY20) | FY20 Target |
|----------|-------------------|---|-------------------------------|-------------|
|          | PP_PREV (AGYW)    |   |                               | 46241       |

**Table 4.6.4 Targets for OVC and Linkages to HIV Services**

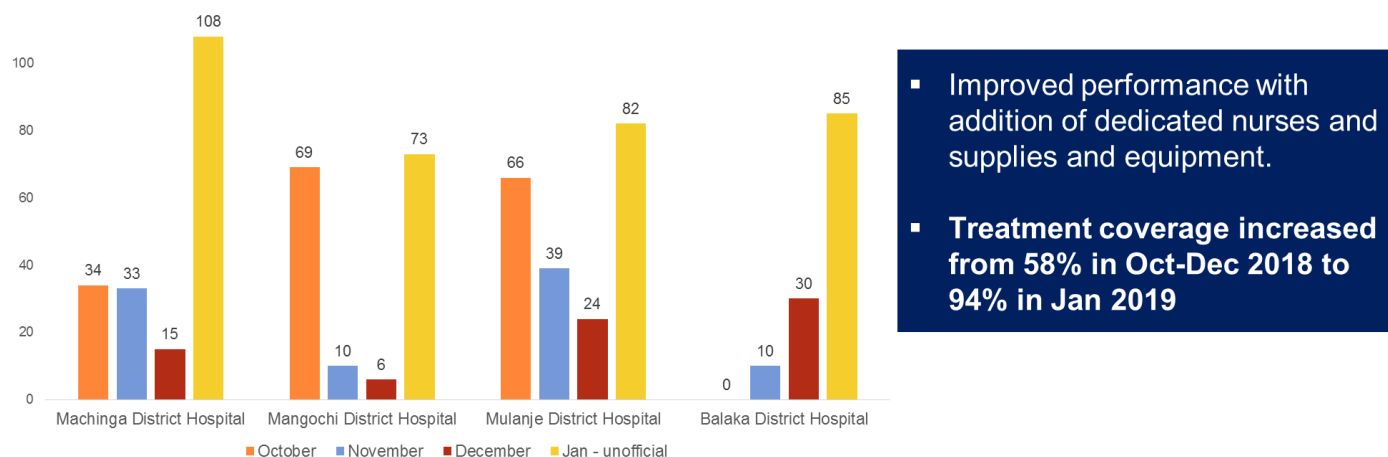
| SNU   | Estimated # of<br>Orphans and<br>vulnerable<br>children | Target # of Active<br>OVC (FY20 target)<br>OVC_SERV | Target # of Active beneficiaries<br>receiving support from PEPFAR<br>OVC programs whose HIV status is<br>known in the program files (FY20<br>target) OVC*** |
|---|---|---|---|
| <b>Balaka*</b>  | 31,845  | 30  | 15  |
| <b>Blantyre</b>   | 92,819  | 13,921  | 10,435  |
| <b>Chikwawa</b>   | 42,037  | 8,391   | 6,061   |
| <b>Dowa*</b>  | 43,878  | 20  | 10  |
| <b>Lilongwe</b>   | 136,855   | 9,756   | 6,861   |
| <b>Machinga</b>   | 50,475  | 16,991  | 11,879  |
| <b>Mangochi</b>   | 83,747  | 17,552  | 12,350  |
| <b>Mzimba*</b>  | 55,166  | 210   | 105   |
| <b>Salima*</b>  | 24,204  | 20  | 10  |
| <b>Zomba</b>  | 60,878  | 21,794  | 15244   |
| <b>Totals</b>   | 621,904   | 88,685**  | 62970   |
| <p>* <i>Peace Corps alone districts</i></p> <p>**<i>Total OVC Target= 126 597 (88,685 Active +37 912 Graduated)</i></p> <p>***<i>Below 18</i></p> |   |   |   |

## 4.7 Cervical Cancer Program Plans

As part of COP18, PEPFAR Malawi received a planning level of up to \$5.4 million to support cervical cancer screening and treatment of pre-cancerous lesions among women living with HIV/AIDS (WLHIV). As of Q2 in FY19, PEPFAR Malawi had scaled up cervical cancer activities to 39 high-

burden health facilities spread across 22 districts with an intention to reach 42,825 women by the end of COP18, representing 50% of WLHIV 25-49 years old in these facilities. Through COP19, PEPFAR will sustain efforts and reach an extra 101,507 WLHIV within these facilities and extra health-facility outreach programs to maximize the reach to other facilities without cervical cancer screening services despite no extra funding. All the 39 facilities are general clinics offering ART services with most of them also providing ANC services.

**Figure 4.7.1 Increased number of Women Accessing Cervical Cancer Screening Services in PEPFAR-Supported Sites in FY19 Q1**



Nationally, PEPFAR is advocating for policy changes including the revision of the 2004 service delivery guidelines to align with PEPFAR guidance, provision of technical assistance to the national cervical cancer control task force, as well as placement of a technical assistant in the Reproductive Health Department in the Ministry of Health to strengthen national coordination. At site-level, PEPFAR is actively supporting provider trainings, supportive supervision and mentorship, and the procurement of consumables/supplies and necessary equipment. Where human resources are a significant challenge, PEPFAR is supporting the recruitment of relevant staff to help meet the PEPFAR targets. From Q1 FY19, PEPFAR partners have deployed cervical cancer prevention (CECAP) trained nurses at various facilities and the figure below illustrates a positive trajectory in numbers of WLHIV screened for cervical cancer since then.

Additionally, PEPFAR Malawi has strengthened collaborations with in-country partners working on cervical cancer, and has mediated a strong relationship between the CECAP and the HIV programs to leverage efforts while minimizing duplication. For instance, the MOH, through Global Fund resources, procured cervical cancer control equipment (300 portable thermo-coagulators among other equipment) to scale up cervical cancer screening and treatment at various sites. PEPFAR sites implementing the cervical cancer screen and treat strategy have also benefited from this investment. PEPFAR has also committed to support annual data review meetings in order to promote data sharing, analysis, and usage for continued program improvement.

For WLHIV suspected to have cervical cancer, PEPFAR partners will refer them for further services where available and follow-up with them to track referral outcomes. Although this should be the case in the existing program, effecting and tracking referrals for further appropriate management remains an important challenge. Many women referred for biopsies (as well as treatment of precancerous lesions) are lost to follow-up due to underperforming referral systems as well as unavailability of services to address the biopsy or diagnostic needs for these women. Similarly, other treatment options for secondary prevention such as Loop Electrosurgical Excision Procedure (LEEP) are barely available in Malawi. PEPFAR will work with the Department of Reproductive Health and DHA to make sure that these procedures are available, strengthening referral systems through appropriate monitoring and evaluation, and tracking tools.

#### **4.8 Viral Load and Early Infant Diagnosis Optimization**

In March 2019, Malawi adopted the WHO Annual Viral Load Testing (VLT) policy. This requires an increase in the number of viral load tests done from the COP18 level of 610,574 to 1,111,586 total tests (including repeat tests) resulting in 965,624 individuals receiving a viral load test in COP19. The strategy for the remainder of COP18 and COP19 is to strengthen and scale.

In COP19, lab activities will focus on scaling viral load monitoring and EID, including strengthening sample transportation systems, building the capacity of labs for VL/EID tests, QA/QI for quality control, implementing results reporting via EMRS and hubs (district Health Offices) digitization to reduce the turnaround time, minimizing transcription errors, managing records, and enabling timely clinical decision-making. This investment will be accompanied by community and site-level demand for VL and EID services. In accordance with national guidelines, PEPFAR works to ensure that PLHIV are informed about VL, receive a VL at six and 12 months, with more attention to pediatric PLHIV and pregnant mothers. All exposed infants are tested at two and 24 months to confirm positivity. PEPFAR will support strengthening cascade milestones and significantly scale up services to manage annual testing demand. The VL cascade, depicted in Figure 4.8.1 below, shows each step along the cascade.

**Figure 4.8.1 Viral Load Cascade – Priority Areas for Maintenance, Strengthening, and Scale-up**



The WHO July 2014 VL Operational Guidelines provide direction around sample type, recommending that plasma specimens for VLT is the preferred approach to determining virologic failure at the threshold of 1,000 copies/mL among people living with HIV. However, where logistical, infrastructural, or operational barriers to performing VLT using plasma specimens have not been resolved, dry blood spot (DBS) specimens for VLT can be used effectively at the threshold of 1,000 copies/mL on most laboratory-based platforms. Beginning in COP18 and FY19, Malawi will start replacing DBS specimens with plasma specimens in a phased manner, starting with cities and other urban places where cold chain and sample collection capacity is less of a challenge. In the first phase, 25% of the VL volume will be collected in plasma from urban places in Mzuzu, Lilongwe, Blantyre, and Zomba. The plan is to reach 90% of all the national sample volume by COP20.

With support from CDC headquarters, PEPFAR Malawi introduced HIV drug resistance testing in Malawi, and fully established the drug resistance-testing lab in COP18. A fast-track accreditation of the HIV drug resistance testing was initiated by PEPFAR, MOH, and WHO. COP19 will continue to leverage this capability to improve treatment of PLHIV and current capacity is for approximately 3,000 tests per year. However, PEPFAR will continue to support efforts towards increasing capacity for up to 6,000 tests per year.

To achieve annual VL testing capacity and plasma sample replacement, PEPFAR will invest in the following areas:

- Sample transportation optimization to reduce costs and reduce TAT, including:
  - Rightsizing the frequency of visits to facilities using a pull, rather than a push system;
  - Providing additional riders, cold chain facilities, and motor cycles for plasma in urban settings; and,

- Applying a sample and results tracking system.
- Increased testing capacity through:
  - Additional equipment (conventional and POCs on placement arrangement through MOH and GFATM, rather than procured);
  - Additional reagents (GFTAM);
  - Additional supplies;
  - Additional HRH;
  - Hub digitization;
  - Storage capacity for samples banks;
  - Laboratory networking for EQA and QI; and,
  - Laboratory waste management.

**Sample transportation:** In COP17, FY18 Riders for Health transported 419,530 samples from across the country, of which, 82.5% were viral load, 11% EID, 6% TB, and 0.5% others. They visited 662 sites in all the 28 districts of the country. PEPFAR will continue to support national transportation of samples at all health facilities and will strengthen the system to be able to support the phased switch to plasma samples in urban areas and annual testing scaled up DBS volume for VL and EID.

**Current Laboratory Capacity and Plans for Scaling:** Malawi's estimated VL need by 2020 is 1.1 million tests per year. Based on an analysis done for COP19 (see Figure 4.8.2 below), Malawi currently has the capacity to achieve these testing volumes, but will need additional investment through HRH to sustain two shifts introduction. This implies a continuous 16-hour day (with two eight-hour shifts for staff) and data clerks will need to be added to decrease sample log-in time. Potentially, placing more instruments in current labs would allow for decreases in testing hours and decrease HRH needs.

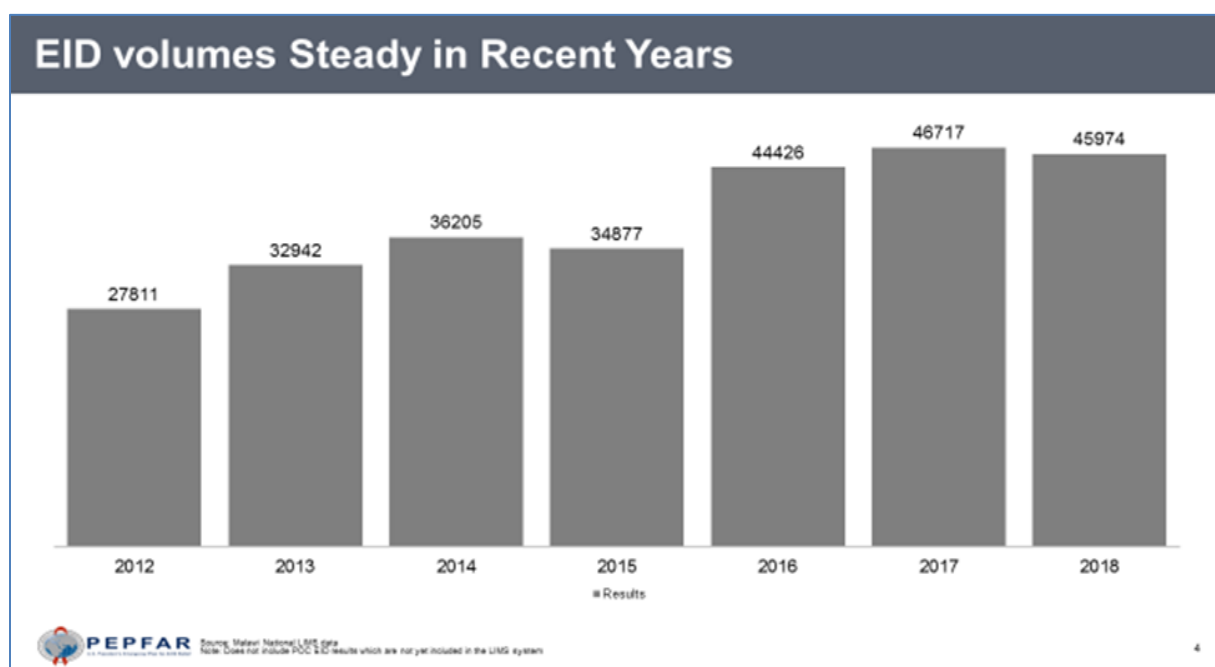
**Figure 4.8.2 Capacity to Achieve Testing Volumes**

**Capacity at 10 Molecular Labs**

| <b>Instrument Running Time</b> | <b>16 Abbott m2000 Annual Capacity</b> | <b>2 Roche CAP/CTM96 Annual Capacity</b> | <b>2 Hologic Panther Annual Capacity</b> | <b>Additional 4 Hologic Panther (Potential) Annual Capacity</b> | <b>Current Annual National Capacity</b> | <b>National Annual Capacity w/ 4 Additional Hologic Panther</b> |
|--------------------------------|--|--|--|---|---|---|
| <b>8 hr/day</b>                | 297,600                                | 58,800                                   | 108,000                                  | 216,000   | 464,400                                 | 680,400   |
| <b>12 hr/day</b>               | 595,200                                | 84,000                                   | 162,000                                  | 324,000   | 841,200                                 | 1,165,200   |
| <b>16 hr/day</b>               | 892,800                                | 109,200                                  | 216,000                                  | 432,000   | 1,218,000                               | 1,634,000   |

**Early Infant Diagnosis:** EID testing has plateaued at 45,000 tests per year for the past three years. The reasons for this include missing POC results and reduced mother to child transmission.

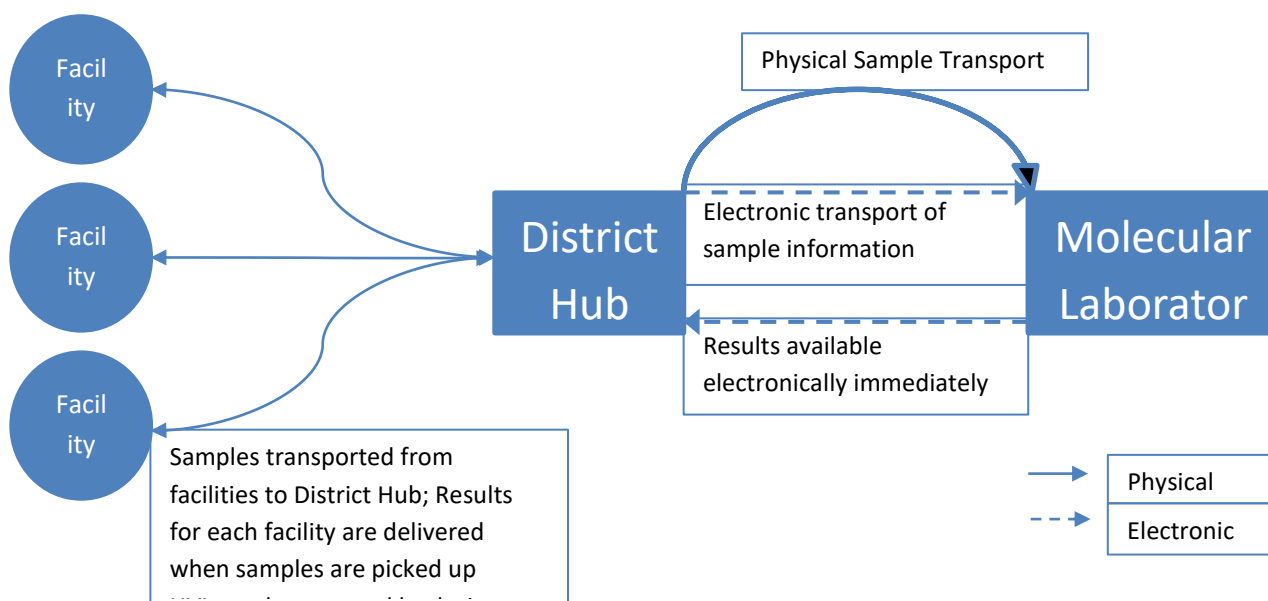
**Figure 4.8.3 EID Volumes in Recent Years**



**Optimized Use of Point of Care:** Through investments from the Global Fund, CHAI, TB funds and other donors, there are 90 installed and functional GeneXpert devices with 398 modules, with another 26 GeneXpert (164 modules) in country, but yet to be installed. Based on an evaluation done in country, MOH approved GeneXpert devices for targeted VL. Another 25 m-pima POC devices are also available for EID testing in Malawi. The GXAlert system has allowed greater visibility into the utilization of the GeneXpert devices. Utilization of the GeneXpert devices for TB and HIV continues to increase. In FY18, 34 GeneXpert devices were validated for HIV/TB testing.

**Improving Viral Load Return of Results through Hub Digitization:** As part of reducing TAT, PEPFAR will support plans to build capacity at district sample hubs for electronic return of results by procuring and installing digitization equipment. This will include workstations, printers, and barcode scanners in hubs, in addition to integrating hubs with laboratory information management systems (LIMS) to allow for remote sample login and results return to be decentralized to the hubs. This will decrease time needed to log samples in the lab upon receipt, eliminate results losses, and decrease transportation time of results.

**Figure 4.8.4 Improving Viral Load and Return of Results through Hub Digitization**



Implementation of VL to the annual testing policy plus plasma with a phased introduction will require PEPFAR to make additional investments in HRH, equipment, sample transportation, consumables, and hubs strengthening.



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## 5.0 Program Activities for Epidemic Control in Attained and Sustained Locations and Populations

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### 5.1 COP19 Programmatic Priorities

**Men and Women:** COP19 interventions to reach men and women living with HIV include the provision of PITC and active index testing. PEPFAR will scale up HIV self-testing to the higher volume facilities to support the national program. Implementing partners will introduce screening tools to reduce over-testing and increase the overall efficiency of the national HTS program. All newly identified positive men and women will be linked to ART services for early ART initiation. PEPFAR will collect and analyze program data, perform routine supportive supervision through the national program, and ensure implementers conduct targeted clinical mentoring at sites as needed. Support will include optimized viral load monitoring through sample transportation systems and analysis of viral cascade data. Implementing partners will target priority populations with a package of services specifically tailored to them under the indicator PP\_PREV. These populations include tea estate workers, sugar plantation workers, fisher folks, immigration officers, police officers, track drivers, and schoolteachers. Peer educator and male champion strategies are used to ensure close monitoring on service access. In COP19, PEPFAR will target specific priority populations in five districts, up from three districts in FY18.

**Children:** In sustained districts, PEPFAR will support HIV case identification among children and adolescents seeking services at health facilities through PITC and active index testing using existing staff. PEPFAR will support the roll-out of optimized pediatric ARVS. For adolescents, PEPFAR will maintain existing teen clubs as well as share lessons learned with the MOH, which has included teen clubs as part of its national package of services (financed by the Global Fund HIV grants). PEPFAR will continue support for viral load and EID testing.

**TB/HIV:** COP19 implementation in sustained districts will continue to focus on TB case-finding in HIV settings, HIV case-finding among presumptive and confirmed TB cases, and ensuring that co-infected PLHIV are initiated on TB and HIV treatment early. At the site-level, PEPFAR will support HIV testing for all presumptive and confirmed TB cases. For co-infected PLHIV, PEPFAR will promote early ART and TB treatment initiation, including fast-tracking HIV positive TB PLHIV for ART initiation, and provide an extra dose of Dolutegravir (one of the active ingredients in TLD) to optimize HIV treatment. PEPFAR will also support optimized GeneXpert use through real-time tracking and analysis data.

**Prevention:** In COP19, PEPFAR will reach prisoners with HIV testing and linkage to treatment services. PEPFAR will not support other community-level programming (such as OVC, comprehensive services for key populations through drop-in centers, and targeted AGYW

prevention activities) in sustained districts, except through the work of Peace Corps Volunteers in their communities.

## 5.2 Targets for attained and sustained locations and populations

**Table 5.2.1** - \*since Malawi only covers scale-up and sustained districts, we have no Attained Districts information to provide in the requested table.

**Table 5.2.2 Expected Beneficiary Volume Receiving Minimum Package of Services in Sustained Support Districts**

| Table 5.2.2 Expected Beneficiary Volume Receiving Minimum Package of Services in Sustained Support Districts |                            |                        |                        |
|--|----------------------------|------------------------|------------------------|
| Sustained Support Volume by Group  |                            | Expected result APR 19 | Expected result APR 20 |
| HIV testing in PMTCT sites   | <i>PMTCT_STAT</i>          | 218,654                | 249,258                |
| HTS (only sustained ART sites in FY18)   | <i>HTS_TST/HTS_TST_POS</i> | 597,058/31,401         | 860,068/27,294         |
| Current on ART   | <i>TX_CURR</i>             | 230,886                | 255,040                |
| OVC  | <i>OVC_SERV</i>            | 38                     | 90                     |

### 5.3 Establishing service packages to meet targets in sustained districts

| Program Area                | Key interventions   |
|-----------------------------|---|
| <b>First '90'</b>           | <ul style="list-style-type: none"> <li>- Target PITC using screening tools utilizing the existing HTS Providers (HSAs and/or HDAs)</li> <li>- Maintain support for infant early virologic testing</li> <li>- Scale up active index case testing at targeted facilities and community locations</li> <li>- Strengthen active linkage systems</li> <li>- Monitor the effectiveness of referral tools and bi-directional facility-community referrals to guide timely interventions</li> </ul> |
| <b>Second '90'</b>          | <ul style="list-style-type: none"> <li>- Target remedial district-level clinical mentoring services</li> <li>- Support the roll-out of optimized ARVS for adults and children in all the facilities</li> <li>- Support MOH systems for retention and back-to-care activities</li> </ul>   |
| <b>Third '90'</b>           | <ul style="list-style-type: none"> <li>- Continue provision of viral load sample transportation services</li> <li>- Maintain standardized VL sample log and high VL registers</li> <li>- Target clinical mentoring services to support clinical decision-making in cases of high VL</li> </ul>  |
| <b>Adolescent Treatment</b> | <ul style="list-style-type: none"> <li>- Support for already established Teen Clubs for differentiated adolescent care until fully transitioned to MOH</li> <li>- Provide necessary technical support to MOH as they scale-up Teen Clubs model in sustained districts using Global Fund resources</li> <li>- Provide teen support hotline services</li> </ul>   |

## 6.o Program Support Necessary to Achieve Sustained Epidemic Control

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Malawi's resource constrained health system continues to pose a threat to successful HIV/AIDS program implementation and the achievement of epidemic control. While PEPFAR, the Government of Malawi, and other partners have made progress to address key health system barriers on an annual basis, the systemic challenges still persist. In COP17, PEPFAR engaged in a systems capacity gap analysis through the triangulation of MER data, SID (2017), and SIMS assessment results and identified seven key systems barriers, six of which will continue to be addressed in COP19. Successful completed construction and installation of 79 HTC/ART Units and three HIV clinics in COP18 addressed the seventh barrier - "Infrastructure limitations for HIV service delivery". Beyond ongoing monitoring of the infrastructure for efficient utilization, minor facility renovations to enhance site-level workflow, and improving infection control, no additional infrastructure investment is planned in COP19. For COP19, this infrastructure ensures quality and confidentiality of HIV services through privacy for clients and optimal storage conditions for HIV/AIDS commodities.

COP19 strategic above site/above service delivery activities (reflected in Table 6, Appendix C) will therefore address the following health system barriers:

- Inadequate HRH to implement quality targeted HIV service delivery at the site and community-level;
- Weak information systems to efficiently collect accurate, real-time epidemiological and health data;
- Sub-optimal implementation of lab mechanisms to effectively and efficiently utilize lab resources and inadequate laboratory infrastructure to meet viral load scale-up goals for COP18;
- Unfavorable policy environment to implement innovative, evidence-based HIV interventions across the cascade of treatment and prevention;
- Limited host-country institutional capacity for evidence-based management of HIV programs; and,
- Limited commodity management and storage capacity at national, district, and facility levels.

To address these barriers in COP19, PEPFAR Malawi will implement key above site interventions.

### 6.1.1. Inadequate HRH to implement quality targeted HIV service delivery

Despite efforts by both the Government of Malawi and its donors to increase the number of health care workers in public facilities, the country still has one of the most severe health workforce shortages in Africa. The country registers the lowest physician-to-population ratio at 2:100,000 and the second lowest nurse to population ratio at 28:100,000 as compared to its neighboring countries<sup>32</sup>. Overall vacancy rates for HRH in the MOH is currently reported at 48% in public facilities and 51% in CHAM facilities.<sup>33</sup> Among the clinical cadres critical for service delivery, the pharmacy profession has the highest vacancy rate at 87%. Clinicians have the lowest vacancy rate at 31%, while nurses are reported to have a 54% vacancy rate. Although there is limited historical data on HRH expenditure in the country, a review of the literature shows that there is insufficient funding from the MOH for human resource activities and that affects future HRH recruitment<sup>34</sup>. The HRH strategic plan of 2018-2022 estimates that it will take over 30 years for the country to close the current HRH gap, even with various interventions<sup>35</sup>. The inability of MOH to recruit at required HCW-to-patient ratios for an extended period negatively affects the availability of the quality of services delivered across the clinical cascade.

Fundamental to creating a health workforce that is responsive to health system needs and population demands, robust human resources management systems create more training opportunities for health workers and promote their retention and professional development. Overall, poorly optimized HRH management systems and poor enforcement of existing pre-service training, deployment, and retention policies further compound HRH barriers. However, the new national HRH strategic plan presents opportunities for the country and its partners to strengthen strategic direction for HRH planning, forecasting, and costing to avert a future crisis of HRH shortage. PEPFAR continues to engage with MOH in this space to ensure complementarity of PEPFAR support to national HRH priorities.

In COP18, PEPFAR provided ongoing above site technical support to the MOH Human Resources Directorate to support implementation of key sections of the national HRH strategic plan and to ensure PEPFAR HRH investments in HRH at site level are sustained through favorable policy support, strategic planning, and monitoring. Critically, this technical support ensured smooth absorption of 50% of PEPFAR's supported HCWs on to the government's payroll. In COP19, PEPFAR will focus on policy-level HRH engagement with MOH to ensure the remaining 50% (228) of supported HCWs are fully absorbed in the MOH establishment as per the signed MOU. PEPFAR will also maintain surge salary support for 360 HCWs. In COP19, PEPFAR will also increase and strengthen engagement with decentralized governance structures at the district-level to improve HRH planning and management capacities. Sustainability of PEPFAR site-level HRH investments is dependent on the capacity of decentralized governance structures and the health sector's ability to plan for and retain facility-based HRH in an evidence-based and equitable manner. PEPFAR will

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<sup>32</sup> EHRP 2019

<sup>33</sup> Draft HRH strategic plan 2018 -2022

<sup>34</sup> MOH Resource Mapping 2018

<sup>35</sup> HRH Strategic Plan 2018-2022

therefore strengthen HRH planning and management capacities at the district-level through the implementation of government-to-government HCW salary support in Lilongwe and Zomba to recruit and manage specific cadres in PEPFAR sites at the district level. PEPFAR will also complement this support with ongoing technical assistance directed to district-level GOM HRH teams.

In COP18, PEPFAR continued to support pre-service training of HCWs for the last cohort of scholarship beneficiaries whose intake was in 2016. PEPFAR did not provide new scholarships in COP18. Of the 680 current students, 600 are expected to graduate in FY19. In COP19, PEPFAR will continue to provide scholarships for the remaining 80 students. This final cohort of students includes Nurse Midwife Technicians, Medical Assistants, and Pharmacy Assistants. As per the design at the onset of the pre-service education program, these cadres are still the most critical cadres required for providing ART services in hard-to-reach sites.

In COP18, 33 social workers graduated from a four-year social work degree course to deliver age-appropriate care and support to OVC households and vulnerable AGYW as district social welfare offices. With lessons learned from COP18, in COP19, PEPFAR will continue to build a strong national social welfare system through support for the development of the national social workforce and national case management policies. PEPFAR will also finalize the restructuring of the Social Work Degree program to permit completion within two years instead of the current four years. A two-year degree program will inject the much-needed qualified social workers into the child protection system faster, resulting in improved quality of services for vulnerable children. In COP19, a local partner will be engaged to spearhead this system strengthening agenda.

Since PEPFAR started supporting pre-service training in COP10, 2,060 HCWs have been provided with scholarships across different cadres and 1,380 (66%) have graduated. To ensure return on pre-service training investments, in addition to the bonding requirements, PEPFAR continues to monitor closely the number of graduates recruited and deployed to work in MOH and PEPFAR sites. As of COP18, only 19 graduates (representing 1.3% of total graduates since 2010) could not be traced as having been recruited. Increased PEPFAR engagement and advocacy at the national-level with HRH stakeholders has resulted in improved recruitment rates. By FY18 Q4, 1,361 (66%) graduates were recruited. Of those, 1,082 (79%) were directly recruited by MOH (with support from the Global Fund) and 247 (18%) were recruited through PEPFAR above site salary support funding.

The shortage of skilled human resources in the health sector remains a challenge affecting many aspects of health care delivery. In COP18, PEPFAR supported 13,066 HCWs across all PEPFAR-supported technical areas to ensure effective program implementation; 6,687 (51%) are cadres at facilities, 5,874 (45%) are community-based cadres, and 505 (4%) are management cadres supporting service delivery at facility-level. In COP18, PEPFAR provided monetary salary support for 80% of PEPFAR-supported HCWs critical for implementing the program at facility and community levels. For the remaining 20%, PEPFAR provided non-monetary support such as bicycles, airtime, and meals, for these primarily, community lay cadres. PEPFAR is also recruiting

100 community nurses to support active index case testing scale-up in 80 sites. In COP18, PEPFAR reviewed job descriptions and scopes of work across PEPFAR-supported HCWs to identify synergies across supported cadres and improve efficiencies in utilization of HRH at both facility and community level. With findings from this review, PEPFAR adjusted allocation and distribution of HCWs at the facility level to ensure increased efficiencies for health care workers and to align PEPFAR-supported HRH interventions to program results and impact. This is the beginning of an ongoing HRH rationalizing process to achieve maximum impact of HRH on program results. In COP19, PEPFAR will undertake biweekly HRH site-level reviews in priority sites to monitor HRH impact on program performance. Based on current identified HRH needs for program scale-up and as requested by civil society, in COP19, PEPFAR will recruit an additional 550 HCWs, 400HDAs, 100 HSAs, 30 community nurses, and 20 lab assistants.

In COP19, Peace Corps will recruit and deploy five qualified health professionals as PEPFAR-funded Response Volunteers to support pre-service training of up to 400 students per year through the placement of the volunteers in four key HCW training colleges. This support will contribute significantly to improving the quality of pre-service education outputs and health care worker production in training colleges.

Finally, in 2016, PEPFAR conducted a systematic rapid assessment in all PEPFAR supported health facilities in the three highest HIV burden districts (at the time) – Blantyre, Lilongwe, and Zomba. PEPFAR used data from the site level assessment to model human resources and space needed to rapidly scale ART services in these facilities. With COP16 “Game-changer” resources (\$7 million), PEPFAR installed 79 pre-fabricated clinics (amounting to 316 additional clinic rooms) and 15 pharmacies at 55 priority facilities in the three districts. The MOH welcomed this initiative, which was responsive to one of its highest priorities, infrastructure, and committed to maintain the units through a Memorandum of Understanding. The furnished units are now in place, fully staffed and used, with four final units to be handed over by May 10, 2019. This investment in 316 additional clinic rooms has given the sites the capacity to implement key program priorities (e.g., active index testing), as well as set up male-friendly and youth-friendly spaces to facilitate reaching target groups. The additional pharmacy space will also allow larger ART stocks to be maintained at facilities to support six month dispensing.

Prior to the COP17 investment, an initial round of 35 PEPFAR funded pre-fabricated pharmacies (from COP14) have been in place for more than two years. The geographic placement of these pharmacies was informed by a 2014 health commodities storage capacity assessment at high-volume ART sites.

#### **6.1.2 Weak Information Systems to Efficiently Collect Accurate, Real-Time Epidemiological and Health Data**

To improve program monitoring and allow for rapid strategic shifts at the district and site-level, successful program implementation requires near real-time individual-level data. This allows for the integration of data in multiple ways without increasing the reporting burden for clinic staff.

This also facilitates weekly, monthly, and quarterly management shifts in response to the needs of PLHIV and those at risk of acquiring HIV. Previously, PEPFAR Malawi used available data from MOH or published studies to inform management decisions – a practice PEPFAR has shifted away from to improve near real-time response to the epidemic. To achieve availability of near real-time individual-level data, PEPFAR will continue building a sustainable electronic solution that includes differentiated models based on the needs of the site and a centralized data repository called the Malawi Health Data Lake (MHDL).

The electronic solution for Malawi continues to evolve in response to the needs of the PEPFAR program. Currently at the facility level, it comprises a primarily point of EMRS care, called Baobab EMRS, and will be in 193 high and medium volume sites<sup>36</sup> by the end of FY19. The Baobab EMRS provides modules for ART, HIV testing services, antenatal care, and outpatient services, as well as features that allow integration with laboratory information systems and tracking drug distribution. The remaining smaller PEPFAR DSD and TA sites enter data retrospectively using either Baobab EMRS or a simple electronic solution that captures the HIV testing and treatment cascade called the eMastercard. This solution leverages a standardized data model to facilitate interoperability with the Baobab EMRS. Together the systems will cover 710 sites.

The second component of the electronic solution, the Malawi Health Data Lake, consolidates the site-level databases. It consists of separate secure environments - staging databases, called the Central Data Repository (CDR) and a case-based surveillance database (CBS). Processes within the CDR identify potential duplicates and data quality issues that a data manager resolves with the respective site(s). The process to move data to the CBS strips personally identifiable information fields and inserts a unique CBS ID for each patient to protect their confidentiality. In addition, the MHDL will feed its data into existing site-level and other aggregated systems such as the Malawi DHIS2 installation and the analysis system developed by KUUNIKA.

PEPFAR continues longstanding support for the Ministry of Health and local implementing partners to build and maintain these sustainable electronic solutions to achieve quality ART services and availability of individual-level data. To accomplish this, the EMRS must either address or collaborate across funding sources to solve infrastructure challenges that hinder consistent, hassle free use of the system. For example, internet connectivity, although improving, is still limited in much of the country. As a result, to centralize data, someone must physically visit the site and securely manually transport the data to a point where connectivity is available. This limits the feasibility of frequent data submission. A second challenge is power stability. Frequent long-lasting power outages require installation of a reliable source of backup power.

In COP19, PEPFAR will complete “right-sized” EMRS implementation at the remaining sites offering HIV-related services, including ART, outpatient departments, antenatal care, and HTS sites, and will maintain the implementation in existing sites. The latter includes replacing end-of-life hardware and improving connectivity and power backup systems at the sites, as well as

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<sup>36</sup> Site classification as high, medium or small volume is according to the following classifications: high volume (alive and on ART  $\geq 2000$ ); medium volume (alive and on ART  $>750$  and  $<2000$ ); small volume (alive and on ART  $\leq 750$ ).



enhancing and modernizing the software. PEPFAR will also expand reporting capabilities, including a centralized reporting user interface that provides preformatted, configurable reports designed to facilitate program monitoring and to inform decisions about allocating resources, as well as extending current reporting capabilities available at sites.

In addition to facility EMRS installation, PEPFAR continues to address delays in reporting test results by integrating the EMRS with LIMS. This facilitates same or next day return of lab results to the facility. Within the context of key populations programming, PEPFAR will continue to utilize a DHIS2 based unique identifier system to track the clinical cascade and prevention and referral services provided to KP clients, including periodic repeat testing, linkage to treatment, and referral to other supportive services. The system will facilitate real time monitoring of the implementation fidelity of a comprehensive service package for this critical population.

With support from PEPFAR, the Government of Malawi through the National Registration Bureau (NRB) and MOH has established and rolled out the national birth registration system to 583 health facilities in all 28 districts in the country, of which 35 have electronic birth registration systems (eBRS). NRB also installed eBRS in all district offices, which pushes data to the central database at the MOH. However, despite these accomplishments, coverage of registration of expected births is low, and in COP19, we aim to improve coverage of birth registration for each site and improve on data quality. In COP18, NRB and MOH also started piloting facility-based death registration in four districts and provided two-day trainings to 700 clinicians on the cause of death reporting, as well as orienting 1,200 nurses and ward clerks in death registration. In COP19, we plan to introduce community death registration and community cause of death reporting in these four districts, which could be expanded to other districts once the systems are fully functional. Data from the death registration system will be linked to the HIV case-based surveillance (CBS) system and used to set up mortality surveillance in the country.

In COP17, PEPFAR supported early implementation of a recency study to estimate HIV incidence and detect recent infection among pregnant AGYW in two DREAMS districts – Zomba and Machinga - with expansion in Lilongwe urban and Blantyre. This near real time data helps PEPFAR and the National Program respond to clusters of infections with targeted HIV prevention and treatment efforts. In COP18, the scope of surveillance was broadened to include eight districts; populations beyond AGYW to monitor HIV incidence by age, sex, and geography; and multiple HIV testing service delivery points, including the antenatal clinic. In COP19, the recency surveillance system will be expanded to national coverage, with participating health facilities in 27 districts.

In COP17, Malawi began implementing birth defects surveillance to estimate prevalence of birth defects in sentinel sites and targeted four hospitals in Lilongwe, Blantyre, Mangochi, and Ntcheu for this surveillance. This study is also designed to examine the association of maternal use of ART and birth defects outcomes. In COP18, the protocol was modified to include the establishment of a pregnancy registry and monitoring birth outcomes as is required in transition plans for DTG. In COP19, birth defects surveillance will continue monitoring birth outcomes as DTG continues to be scaled up. These data will inform treatment policy and guidelines.

In COP18, the International Training and Education Center for Health (I-TECH), in partnership with the MOH, piloted a CBS system in selected sites. This CBS system facilitates data access at the national-level and informs programmatic management and analyses. In leveraging routinely collected data from existing systems (like EMRS), in addition to HIV recency and mortality surveillance, CBS is generating data for an individual-level, de-identified longitudinal cohort. Such a cohort allows for the tracking of sentinel events such as HIV diagnoses and ART initiations, as well as other individual-level health outcomes, and has provided robust surveillance data on a real-time basis. In COP19, the CBS system will expand in parallel with EMRS expansion, and the system will continue to be refined to improve data use and sustainability.

Malawi has limited personnel with epidemiological skills to effectively monitor HIV programs. CDC introduced Field Epidemiology Training Programs (FETP) in 2016, a three-month frontline in-service training to strengthen collection and analysis of epidemiological and surveillance data. This facilitates timely responses to HIV program needs, diseases, and events of public health importance. In COP19, CDC plans to train 60 more people in FETP.

### **6.1.3 Poor Optimization of Laboratory Systems to Effectively and Efficiently Utilize Laboratory Resources**

At the end of the COP17 implementation period in September 2018, PEPFAR Malawi achieved the target of national coverage for sample transportation, and PEPFAR now provides sample transportation services to 662 sites in 28 districts at least once a week - twice a week in high-burden sites. In the first quarter of COP18, PEPFAR supported the transportation of 41,953 samples, of which 82.5% were viral load, 11% EID, 6% TB, and 0.5% were other samples. PEPFAR also supported laboratory quality management system implementation in 48 laboratories through SLMTA/SLIPTA schemes. The number of laboratories participating in the national EQA program has increased, with a total of 191 laboratories enrolled in 10 EQA schemes, including 14 viral load/EID laboratories, 39 TB microscopy, and 90 TB Gene Xpert sites. PEPFAR provided scholarships for 109 laboratory students in certificate and diploma-level programs at two colleges to meet the national HRH demand. Salary support and surge strategies under the CHAM mechanism were implemented for newly recruited laboratory personnel to meet the viral load scale-up demand through extended shifts in molecular laboratories. PEPFAR provided in-service trainings to molecular laboratory staffs (technologists and data clerks) and health care workers on sample collection, transportation and analysis for viral load/EID, and TB testing. The Laboratory information management system (LIMS) is implemented in 10 molecular and seven clinical laboratories with ongoing efforts to interface LIMS with EMRS to enhance sample referral, result tracking and reporting, and monitoring and evaluation systems. Five laboratories were earmarked to receive renovation and refurbishment for smooth workflow and biosafety. To date, one laboratory has been renovated and the others are works in progress.

However, improving lab systems alone will not increase viral load demand and utilization. PEPFAR is working to expand PLHIV and provider health literacy about viral load and benefits of low viral

load by implementing initiatives like T=T through collaborations like civil society interface, expert client programs for advocacy, and PLHIV education for viral load demand and use. PEPFAR will support the implementation of EMRS to identify PLHIV eligible for viral load results return, improve organization of services, and ensure accurate documentation and availability of results during PLHIV appointments. PEPFAR will continue to support the use of scorecards for monitoring the viral load cascade, the use of lay cadres in counseling and blood draws to minimize waiting time, and mentorship.

Sample transportation is effective and has coverage of 662 sites in all 28 districts of the country. However, this is not adequate to meet 100% demand considering the new annual viral load testing policy. In COP19, this system will be empowered to strengthen samples and results tracking to contribute towards reduction of losses. The system will be optimized to improve turn-around time (TAT) from the current 46 days for viral load to less than half and, 30 days for EID to less than half and less than 5 days for TB (*URC ST report, 2017*). The introduction of annual viral load testing is expected to double the workload, hence PEPFAR will continue to support sample transport optimization to cope.

Implementation of laboratory quality management systems is necessary to build confidence of service users as well as service providers. To achieve this, in COP18, enrollment of laboratories participating in the national EQA program increased to 191 in 10 EQA schemes.

Implementation of the National Laboratory policy, strategic plan, and guidelines is crucial to improve quality of services in the country. This barrier previously impeded progress of EID coverage, viral load targeted testing in children, and pregnant women through POC or near POC equipment placement in facilities. Development and reviews of these policy-level documents have led to a strategic shift in implementation of viral load, EID, and TB testing in the country, improving coverage as well as quality of testing.

PEPFAR has made significant progress with ongoing policy reviews, including the completion of POC guidelines being reviewed for HIV/TB integration, viral load for equipment placement, and EQA monitoring, and viral load scale-up strategic plan reviews in 2017 - 2019. These documents have supported the planning process for COP19. PEPFAR will continue to support policy reviews through COP19. The complementarity of the testing devices has supported the available national capacity in viral load and EID testing services. The anticipated capacity going into COP18 and COP19 includes 16 Abbott m2000, two Roche CAPCT, two Hologic Panthers, 25 m-PIMAs, and 90 GeneXperts with an additional four Hologic Panthers anticipated.

The LIMS is implemented in 10 molecular laboratories for viral load and EID testing. Seven clinical laboratories have implemented the national LIMS for routine laboratory services, including TB gene Xpert and TB microscopy. PEPFAR will support interfacing LIMS with PCR instruments for direct results transfer to minimize transcription errors and facilitate TAT reductions through electronic results transfers. LIMS is linked to the national EID and viral load dashboard, which needs consistent internet connection for real-time data transfer and timely national-level decision-

making. PEPFAR will continue to support one MOH staff's salary to centrally coordinate LIMS implementation, data flow, and 28 hubs and staff to sustain the linkages. PEPFAR will support the expansion of national LIMS to an additional 10 clinical laboratories and linking LIMS to EMRS to minimize TAT and facilitate a results tracking system. PEPFAR will train laboratory staffs on proper utilization and management of LIMS, which will ensure high quality and real-time data sharing.

PEPFAR will continue to support 10 molecular laboratories and other main laboratories' refurbishment with minor renovations. Most laboratories have space constraints for optimal workflow including spaces for sample accessioning and reagent storage. The glaring need for additional equipment in some of the molecular laboratories to cope with annual testing work volumes will require renovations to alter some walls to fit in new pieces and rest work flows.

Power outages are a constant challenge in Malawi and PEPFAR will continue supporting back-up power supplies for molecular laboratories, such as solar panels and generators, either through procurement, replacement, and/or fuel service maintenance. PEPFAR will continue strengthening appropriate waste management systems to minimize staff and environment exposure to biohazards.

There are weak laboratory equipment management systems in Malawi and laboratory instruments need regular servicing and preventive maintenance for appropriate functioning. PEPFAR will continue supporting service contracts and certification of biosafety cabinets to minimize equipment downtime and service interruption while sustaining service provision.

Although Malawi's blood safety program may not have significantly contributed to the 90-90-90 goals due to the low HIV prevalence of 1.7% among blood donors (MBTS Transition Plan, 2018), the program has made significant progress in blood collections, supplies, blood screening, and testing TTIs. Due to implementation of its EQA systems, MBTS was able to prevent usage of HIV infected blood donated by community. PEPFAR will continue to support this service for COP18 with decreased funding, moving toward zero funding for COP19. PEPFAR will work with MBTS to get accreditation to sustain quality for years to come.

#### **6.1.4 Unfavorable Policy Environment to Implement Innovative, Evidence-Based HIV Interventions across the Cascade of Treatment and Prevention**

A favorable policy environment is critical to the successful implementation PEPFAR Malawi's program. PEPFAR Malawi continues to engage at the policy-level and supports MOH in the development of effective and innovative policy that will facilitate the achievement of epidemic control in Malawi. FY18 was a major breakthrough year for PEPFAR with many of the critical policy issues approved by the Government of Malawi following the persistent advocacy of PEPFAR on critical policies. In COP18, PEPFAR identified, advocated for, and implemented active index testing and self-testing in 80 high volume facilities in the 5.5 acceleration districts. In COP19, PEPFAR will scale up active index testing into all PEPFAR priority districts.

In COP19, HIV self-testing will become an important component of PEPFAR's case finding, both at the health facility level through active index testing and in community settings. HIV self-testing will be integrated into the index-testing approaches to reach contacts that decline active models of partner notification. PEPFAR will target HIV self-testing distribution to high burden communities to reach priority populations, such as AGYW and men. PEPFAR partners will ensure that appropriate linkage mechanisms are established and that those screening positive receive confirmatory HIV testing services and are linked to treatment, as appropriate. PEPFAR worked with MOH to develop national guidelines for the implementation of HIV self-testing and is now scaling implementation in the 10 priority districts. PEPFAR will also implement to scale annual viral load, and continue transitioning PLHIV to TLD following successful advocacy and approval by the Government of Malawi for implementation of both policies in COP18.

In COP19, PEPFAR will provide funding support to faith-based organizations to develop strategic messaging for promoting annual viral load, self-testing retention in care, and increased participation of men in testing. PEPFAR will develop standardized faith-sensitive HIV testing, re-testing, and retention messages through stakeholder and validation meetings. PEPFAR will also support the nascent AGYW Strategy Secretariat positioned in the Ministry of Youth to strengthen harmonized data management and data analysis through placement of a technical adviser and programmatic support to the secretariat.

#### **6.1.5. Limited Host Country Institutional Capacity for Evidence-Based Management of HIV Program**

Implementation of Malawi's HIV response is dependent on the capacity in the Government of Malawi's technical directorates. In COP19, PEPFAR will continue to second critical technical assistance (TAs) for long-term technical support in key MOH directorates. The importance of these TAs cannot be understated. Seconded TAs ensure evidence-based planning and management of the epidemic and have greatly contributed to the success of the Malawi's HIV/AIDS response. The TAs also transfer skills to their government counterparts before their tenure is completed. TAs continue to assist the national program in prevention and key populations planning, the National TB Program, HIV care and treatment program execution, HIV/AIDS program monitoring and evaluation, supply chain, strengthening supply chain management and systems and Global Fund oversight. In COP19, PEPFAR will maintain this support to the key directorates.

#### **6.1.6. Limited Commodity Management and Storage Capacity at National, District, and Facility Levels**

With national implementation of Test and Start, transition to TLD, and the rollout of multi-month prescription options to improve service delivery, improved commodity management and availability of increased pharmacy storage space are critical. Nevertheless, some facilities report commodity management challenges at the site-level, particularly stock-outs of condoms and rapid

test kits generally resulting from weak inventory commodity management skills.<sup>37,38</sup> The stock-out of these commodities directly affects the achievement of the PEPFAR goals and targets.

With Global Fund resources and significant technical assistance from PEPFAR, Malawi is operating a well-functioning parallel supply chain for HIV/AIDS commodities, ensuring HIV commodity availability at service delivery points. In COP19, PEPFAR Malawi will work with district and health facility staff to improve accuracy of inventory records through mentorship and supportive supervision. PEPFAR will also support additional sites to report inventory data directly into the web-based OpenLMIS. This will increase visibility into inventory levels, consumption, and facilitate a triangulation between clinical and stock data at site-level (facility) at more regular intervals.

Building on successes from COP18, PEPFAR will continue to support critical supply chain activities including national quantification, forecasting, and monitoring and supply planning for HIV and related commodities. To address shortage of medicine storage space at priority sites,<sup>39</sup> PEPFAR completed installation of 15 additional prefabricated pharmacy storage units in COP18 (with COP16 supplemental resources). The 15 prefabricated pharmacy storage units are part of the 448 prefabricated units installed between 2016 and 2019 with support from PEPFAR, PMI, DfID and Global Fund to address critical commodity storage challenges at site level.

To sustain the gains from the previous year and support the current scale-up plan, PEPFAR will provide supply chain technical assistance to health facility staff and MOH to manage the programmatic shifts and related commodity requirements. PEPFAR will support the country to manage a seamless transition from TLE to TLD regimen, which is a more effective regimen, as well as the implementation for pediatric ART optimization as recommended by WHO. The plan will ensure safe disposal of all remaining NVP containing regimens after phase out from September 30, 2019. The MOH, Global Fund and PEPFAR teams have discussed and agreed that the wastage of NVP containing regimens is justifiable because of the inferiority of the NVP and the superiority of LPV and DTG regimens for children. This is consistent with COP guidance on NVP-containing regimens.

In COP19, by ensuring timely procurements, distribution, and monitoring, PEPFAR will provide targeted support for management of other key commodities such as VMMC commodities, HIV self-test kits, lubricants, and condoms for priority populations.

To ensure availability of logistics data and visibility of national supply chain, PEPFAR will continue to provide technical support for maintenance and roll-out of Open LMIS, the national platform for collection and reporting of supply chain data for decision-making. The support will include: troubleshooting, provision of internet bundles to health facilities, equipment, on-the-job training, systems updates, and establishment of additional data hubs for direct data entry. This system enables national, district, and site level staff to closely monitor stocks and respond pro-actively to

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<sup>37</sup> Supply Chain Data Quality Assessment in Malawi, GHSC-PSM, January 2018

<sup>38</sup> Monthly Logistics Management Information System (LMIS) Report, MOH-HTSS, 2017

<sup>39</sup> A rapid assessment of Health Commodity Storage Capacity of Public Health Facilities in Malawi, USAID/Deliver Project, 2014

low stocks through movement of commodities between facilities and emergency deliveries as needed. In COP19, PEPFAR intends to ensure that stock outs of key commodities do not exceed five percent through investment in continued targeted site level monitoring and supervision, which address key bottlenecks in the supply chain. Through COP19, PEPFAR plans to support the development of a national laboratory commodity logistics system for collection, reporting, and monitoring of viral load reagents and lab commodities. Laboratory commodities topped the list of expired commodities in a 2017 situational analysis for expired health products.

In COP19, PEPFAR will support national efforts to strengthen the national pharmacovigilance system for monitoring Adverse Drug Reaction (ADRs), considering the transition to new ARV formulations. In COP18, PEPFAR supported the design and revision of ADR forms and in COP19, PEPFAR will strengthen reporting mechanisms and support the Pharmacy Medicines and Poisons Board (PMPB) ADR expert review committee to review suspected ADR reports and provide feedback to stakeholders.

## **6.2 Table 6 Investments Contribute to Epidemic Control Priorities**

The Table 6 systems investment strategy plays a key role addressing epidemic control priorities, through the contributions of individual activities, as well as through collaboration with site-level interventions and strategies. In COP19, outcome-driven above site investments address six key systems barriers to achieving epidemic control, with the highest investments toward strengthening information systems, improving national-level capacity for program management, optimization of lab mechanisms, and improving HRH to implement quality HIV services.

## **6.3 Leveraging Host Country Government and Other Donor Investments**

PEPFAR implements all above site programs following careful consultation with the Government of Malawi and other donor investments. As outlined in Section Four, the PEPFAR Malawi team engages frequently with government counterparts and key directorates to collaborate on program planning, implementation, monitoring, and policy-related issues. PEPFAR meets regularly with other donors including UNAIDS, WHO, DfID, GIZ, and others through participation in national-level donor and stakeholder technical working groups. These fora bring together bilateral and multilateral donors, government, civil society, and iNGOs to discuss progress and coordination of national health programming investments and identify solutions for obstacles and bottlenecks. PEPFAR uses this platform to advocate for innovative interventions as well as align/leverage PEPFAR above site activities with national HIV program objectives.

## **6.4 Monitoring Progress of Table 6 Investments**

For COP19, the PEPFAR team defined measurable key benchmarks for each above-site activity included in Table 6 to ensure regular monitoring and assessment of progress, thereby informing further program developments and strategies toward achieving epidemic control.

## **6.5 Ultimate Goal of Systems Investments and Indications toward Adequate Functioning**

In COP19, the ultimate goal of PEPFAR Malawi's systems investments is to support the implementation of sustainable strategies and interventions to achieve epidemic control through the following: ensure that essential evidence-based policies are in place to implement and scale-up high impact interventions; establish systems across various service delivery points across the continuum of care to turn the data into action in real-time and effectively manage client outcomes; and, to make sure HRH is targeted and has demonstrated impact toward HIV prevention and treatment outcomes.



## 7.0 Staffing Plan

The USG staffing footprint in COP19 supports the critical technical priorities of the PEPFAR portfolio as well as robust oversight of the USG investment.

1. **Staffing Input and Interagency Organizational Structure:** Strategic information staffing has increased over the years and the team now has the capacity to utilize data to manage implementing partners, as well as review strategies. The Strategic Information Advisor in the PEPFAR Coordination Office was recruited through CDC to enhance interagency coordination of strategic information planning, implementation, and monitoring and will provide advanced skills in data analysis, visualization, and tool utilization.

COP 19 staffing plans reflect adjustments to ensure all agencies implementing PEPFAR programming are adequately staffed to provide technical assistance, effective activity design and implementation oversight, and engagement with the Government of Malawi. Staff support day-to-day project management and conduct the robust monitoring and data analysis required to adapt the program to epidemic response priorities. COP19 includes a net increase of 11 new positions.

**Figure 7.1 Overall staffing footprint in COP19**

| AGENCY       | NUMBER OF INDIVIDUALS | %AGE OF TOTAL STAFFING | PLANNED NEW |
|--------------|-----------------------|------------------------|-------------|
| USAID        | 42                    |                        | 9*          |
| DOD          | 3                     |                        | 0           |
| CDC          | 38                    |                        | 2           |
| DOS          | 5                     |                        | 0           |
| PC           | 13                    |                        | 0           |
| <b>Total</b> |                       |                        |             |

*\*Institutional arrangements for these locally hired personnel still to be determined.*

2. **Long-term Vacant Positions:** For CDC, there is one long- term vacancy: the Epidemiologist. It has taken time to recruit the Epidemiologist at CDC because the position required re-classification, which was ultimately delayed.

By FY19 Q2, three of USAID's key staffing vacancies have been filled. These include: two Monitoring and Evaluation Specialists and a Senior HIV Prevention Advisor. USAID is currently working to ensure timely solicitation of the remaining vacant positions: Monitoring and Evaluation Specialist (to be re-classified as a supervisory position), Community Support Specialist, Epidemiology Data Manager (to be converted to a fellowship mechanism after multiple unsuccessful hiring attempts) and Quality Improvement Specialist (recently re-classified as a local hire), which will be filled

within FY19. These existing vacancies are still critical to ensure effective implementation of the PEPFAR Malawi strategy.

3. **Justify Proposed New Positions:** CDC proposes adding two new positions: a Biomedical HIV Prevention Specialist and an Epidemiologist. The Biomedical HIV Prevention Specialist will be responsible for design, implementation, coordination, and evaluation of HIV prevention program activities. The position will also be key in learning about comprehensive HIV prevention interventions to enhance the efforts of PEPFAR Malawi. The position will focus on pre-exposure prophylaxis service delivery; family planning integration into HIV service delivery; STI screening and management; packages for sero-discordant couples, and prevention messaging for youth, men, and women. The position will also collaborate with Malawi's Ministry of Health, Development Agencies, U.S. Government Implementing Partners and those funded by the Global Fund and other Non-Governmental Organizations implementing HIV prevention program activities and studies. This person will also serve as the Project Officer managing PEPFAR funded HIV prevention cooperative agreements.

The Epidemiologist will be a contractor and will serve as a principal point of contact for the HIV population-based survey, which would include partner coordination and communication; and, data management, analysis, and dissemination. The Epidemiologist will help support planning, training, and implementation of HIV surveillance studies targeting pregnant women at ANC sites. The position will also provide support monitoring and implementation of national program evaluations. Additionally, the Epidemiologist will review inputs and results of HIV modeling activities using geospatial, survey, and program data.

CDC also proposes to repurpose the position of one Program Administrative Assistant to a Cooperative Agreements Specialist. The Cooperative Agreements Specialist will better provide the required services for Implementing Partner Management than the Program Administrative Assistant. The additional staff will be located in the USAID and CDC building, where there is sufficient space and support.

In response to the call for more investments in local partners, USAID/Malawi did an internal detailed analysis to match staffing capacity with the envisaged workload. Accordingly, USAID determined a need for the following additional positions to better manage and guide local partner performance: Financial Analyst, Acquisition and Assistance Specialist, KP Specialist, HIV Operations Team Lead, Epidemiologist/SI Specialist, and four Partner Management Specialists. Four of these positions will be housed at the USAID office and the other five staff - Epidemiologist and Partner Management Specialists - will be embedded with implementing partners and/or Government of Malawi to provide day-to-day, on-site technical assistance. Discussions with U.S. Embassy leadership are ongoing to determine exact arrangements for these additional staff.

4. **Explain major changes to cost of doing business (CODB):** A net increase of 0.066% (\$5,000) means that CDC has essentially flat-lined the budget. Shifts have been made within CODB categories to invest in staffing vacancies that will be filled at the onset of FY20. 83% of the CODB is comprised of unavoidable costs (including salaries, benefits, capital security cost sharing, ICASS, computer, and IT services). As such, the budget leaves no room for any cut. If the CODB is not funded in full, program implementation will be affected adversely.

USAID/Malawi is working to transition its development assistance portfolio in alignment with a global reorientation toward self-reliance. This effort includes significantly expanding the breadth of prime partnerships with Malawian organizations through USAID-managed PEPFAR programming. In COP 19, USAID's CODB will increase to ensure adequate staffing to design, award, and effectively manage new implementing mechanisms. The COP 19 CODB budget also includes resources to provide targeted technical assistance to support local organizations to meet rigorous PEPFAR results and expenditure reporting requirements as well as USAID award compliance guidelines. USAID will continue to support staffing costs for two offshore hire positions in the PEPFAR Coordination Office and one additional position in COP 19.

# APPENDIX 1 – PRIORITIZATION

## Continuous Nature of SNU Prioritization to Reach Epidemic Control

Table A.1

| SNU        | COP    | Prioritization      | Results Reported | Attained: 90-90-90 (81%) by Each Age and Sex Band to Reach 95-95-95 (90%) Overall |       |      |       |      |       |     |       |     |       |     |       |      |       |      |      |      |                     |
|------------|--------|---------------------|------------------|---|-------|------|-------|------|-------|-----|-------|-----|-------|-----|-------|------|-------|------|------|------|---------------------|
|            |        |                     |                  | Treatment Coverage at APR by Age and Sex  |       |      |       |      |       |     |       |     |       |     |       |      |       |      |      |      |                     |
|            |        |                     |                  | 0-9   | 10-14 |      | 15-19 |      | 20-24 |     | 25-29 |     | 30-34 |     | 35-39 |      | 40-49 |      | 50+  |      | Overall TX Coverage |
|            |        |                     |                  |   | F     | M    | F     | M    | F     | M   | F     | M   | F     | M   | F     | M    | F     | M    | F    | M    |                     |
| Balaka     | COP 15 |                     | APR 16           | 38%   | 68%   | 71%  | 29%   | 45%  | 34%   | 20% | 43%   | 17% | 67%   | 36% | 68%   | 51%  | 73%   | 71%  | 74%  | 79%  | 57%                 |
|            | COP 16 | Sustained           | APR 17           | 50%   | 64%   | 74%  | 43%   | 43%  | 53%   | 20% | 59%   | 18% | 79%   | 37% | 81%   | 51%  | 71%   | 61%  | 66%  | 66%  | 60%                 |
|            | COP 17 | Sustained           | APR 18           | 52%   | 72%   | 84%  | 45%   | 53%  | 58%   | 28% | 62%   | 23% | 82%   | 36% | 86%   | 54%  | 75%   | 64%  | 70%  | 72%  | 64%                 |
|            | COP 18 | Sustained           | APR 19           | 61%   | 88%   | 85%  | 59%   | 112% | 62%   | 50% | 59%   | 29% | 84%   | 49% | 94%   | 70%  | 79%   | 86%  | 63%  | 94%  | 73%                 |
|            | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 87%   | 87%  | 87%   | 87% | 87%   | 87% | 87%   | 87% | 87%   | 87%  | 87%   | 87%  | 87%  | 87%  | 87%                 |
| Blantyre   | COP 15 |                     | APR 16           | 40%   | 74%   | 73%  | 37%   | 46%  | 45%   | 21% | 50%   | 21% | 80%   | 41% | 75%   | 57%  | 61%   | 66%  | 50%  | 68%  | 57%                 |
|            | COP 16 | Scale-Up Saturation | APR 17           | 42%   | 78%   | 80%  | 45%   | 53%  | 50%   | 25% | 54%   | 22% | 81%   | 41% | 84%   | 59%  | 67%   | 71%  | 54%  | 71%  | 61%                 |
|            | COP 17 | Scale-Up Saturation | APR 18           | 43%   | 77%   | 78%  | 54%   | 63%  | 58%   | 32% | 59%   | 28% | 82%   | 46% | 91%   | 67%  | 70%   | 75%  | 55%  | 76%  | 66%                 |
|            | COP 18 | Scale-Up Saturation | APR 19           | 72%   | 118%  | 116% | 65%   | 137% | 69%   | 62% | 77%   | 38% | 108%  | 65% | 116%  | 96%  | 84%   | 106% | 62%  | 97%  | 87%                 |
|            | COP19  | Scale-Up Saturation | APR 20           | 88%   | 88%   | 88%  | 91%   | 87%  | 91%   | 87% | 91%   | 87% | 91%   | 87% | 91%   | 87%  | 91%   | 87%  | 91%  | 87%  | 89%                 |
| Chikwawa   | COP 15 |                     | APR 16           | 61%   | 75%   | 71%  | 48%   | 44%  | 69%   | 26% | 74%   | 31% | 94%   | 45% | 77%   | 57%  | 60%   | 62%  | 52%  | 69%  | 63%                 |
|            | COP 16 | Scale-Up Saturation | APR 17           | 70%   | 85%   | 82%  | 56%   | 51%  | 74%   | 36% | 79%   | 34% | 100%  | 53% | 88%   | 68%  | 67%   | 76%  | 54%  | 77%  | 71%                 |
|            | COP 17 | Scale-Up Saturation | APR 18           | 73%   | 93%   | 91%  | 66%   | 67%  | 83%   | 46% | 82%   | 39% | 101%  | 55% | 102%  | 75%  | 78%   | 84%  | 61%  | 84%  | 78%                 |
|            | COP 18 | Scale-Up Saturation | APR 19           | 90%   | 92%   | 89%  | 57%   | 106% | 70%   | 75% | 101%  | 47% | 125%  | 71% | 117%  | 96%  | 83%   | 100% | 61%  | 91%  | 89%                 |
|            | COP19  | Scale-Up Saturation | APR 20           | 100%  | 100%  | 100% | 96%   | 98%  | 96%   | 98% | 96%   | 98% | 96%   | 98% | 96%   | 98%  | 96%   | 98%  | 96%  | 98%  | 97%                 |
| Chiradzulu | COP 15 |                     | APR 16           | 69%   | 133%  | 128% | 55%   | 83%  | 47%   | 26% | 73%   | 25% | 131%  | 53% | 156%  | 85%  | 151%  | 119% | 156% | 157% | 109%                |
|            | COP 16 | Sustained           | APR 17           | 63%   | 142%  | 137% | 59%   | 87%  | 49%   | 30% | 67%   | 24% | 118%  | 49% | 150%  | 80%  | 148%  | 115% | 146% | 149% | 105%                |
|            | COP 17 | Sustained           | APR 18           | 57%   | 151%  | 143% | 74%   | 110% | 62%   | 35% | 68%   | 26% | 118%  | 48% | 162%  | 82%  | 156%  | 121% | 158% | 159% | 113%                |
|            | COP 18 | Sustained           | APR 19           | 101%  | 145%  | 140% | 94%   | 179% | 99%   | 80% | 94%   | 46% | 134%  | 78% | 150%  | 111% | 125%  | 137% | 101% | 150% | 117%                |
|            | COP19  | Scale-Up Aggressive | APR 20           | 100%  | 100%  | 100% | 80%   | 87%  | 80%   | 87% | 80%   | 87% | 80%   | 87% | 80%   | 87%  | 80%   | 87%  | 80%  | 87%  | 83%                 |
| Chitipa    | COP 15 |                     | APR 16           | 80%   | 112%  | 121% | 64%   | 106% | 75%   | 37% | 103%  | 36% | 136%  | 78% | 123%  | 82%  | 139%  | 113% | 119% | 169% | 108%                |
|            | COP 16 | Sustained           | APR 17           | 87%   | 120%  | 136% | 77%   | 94%  | 93%   | 54% | 106%  | 48% | 146%  | 82% | 135%  | 91%  | 138%  | 114% | 126% | 152% | 114%                |
|            | COP 17 | Sustained           | APR 18           | 96%   | 130%  | 169% | 89%   | 98%  | 123%  | 79% | 112%  | 58% | 154%  | 97% | 160%  | 117% | 148%  | 125% | 138% | 180% | 130%                |
|            | COP 18 | Sustained           | APR 19           | 94%   | 136%  | 131% | 87%   | 165% | 91%   | 74% | 87%   | 43% | 124%  | 72% | 139%  | 103% | 116%  | 127% | 93%  | 138% | 108%                |
|            | COP19  | Sustained           | APR 20           | 89%   | 89%   | 89%  | 89%   | 88%  | 89%   | 88% | 89%   | 88% | 89%   | 88% | 89%   | 88%  | 89%   | 88%  | 89%  | 88%  | 89%                 |
| Dedza      | COP 15 |                     | APR 16           | 36%   | 57%   | 44%  | 32%   | 33%  | 54%   | 26% | 48%   | 22% | 64%   | 30% | 56%   | 37%  | 46%   | 46%  | 40%  | 47%  | 45%                 |
|            | COP 16 | Sustained           | APR 17           | 40%   | 61%   | 49%  | 42%   | 34%  | 58%   | 33% | 56%   | 30% | 71%   | 40% | 60%   | 43%  | 53%   | 52%  | 42%  | 53%  | 51%                 |
|            | COP 17 | Sustained           | APR 18           | 39%   | 66%   | 64%  | 46%   | 48%  | 57%   | 35% | 58%   | 33% | 69%   | 42% | 67%   | 43%  | 55%   | 53%  | 43%  | 57%  | 53%                 |
|            | COP 18 | Sustained           | APR 19           | 75%   | 108%  | 104% | 69%   | 131% | 72%   | 59% | 69%   | 34% | 98%   | 57% | 110%  | 81%  | 92%   | 100% | 74%  | 110% | 86%                 |
|            | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 84%   | 87%  | 84%   | 87% | 84%   | 87% | 84%   | 87% | 84%   | 87%  | 84%   | 87%  | 84%  | 87%  | 86%                 |

| SNU        | COP                        | Prioritization | Results Reported | Attained: 90-90-90 (81%) by Each Age and Sex Band to Reach 95-95-95 (90%) Overall |       |      |       |      |       |     |       |     |       |     |       |      |       |      |      |      |      | Overall TX Coverage |
|------------|----------------------------|----------------|------------------|---|-------|------|-------|------|-------|-----|-------|-----|-------|-----|-------|------|-------|------|------|------|------|---------------------|
|            |                            |                |                  | Treatment Coverage at APR by Age and Sex  |       |      |       |      |       |     |       |     |       |     |       |      |       |      |      |      |      |                     |
|            |                            |                |                  | 0-9   | 10-14 |      | 15-19 |      | 20-24 |     | 25-29 |     | 30-34 |     | 35-39 |      | 40-49 |      | 50+  |      |      |                     |
|            |                            |                |                  | F   | M     | F    | M     | F    | M     | F   | M     | F   | M     | F   | M     | F    | M     | F    | M    |      |      |                     |
| Balaka     | COP 15                     |                | APR 16           | 41%   | 38%   | 44%  | 51%   | 38%  | 51%   | 38% | 70%   | 42% | 70%   | 42% | 80%   | 69%  | 80%   | 69%  | 74%  | 77%  | 66%  |                     |
|            | COP 16 Sustained           |                | APR 17           | 49%   | 45%   | 52%  | 55%   | 44%  | 60%   | 41% | 78%   | 54% | 78%   | 52% | 87%   | 75%  | 80%   | 77%  | 74%  | 77%  | 71%  |                     |
|            | COP 17 Sustained           |                | APR 18           | 56%   | 52%   | 60%  | 64%   | 52%  | 64%   | 51% | 79%   | 56% | 79%   | 56% | 85%   | 78%  | 85%   | 78%  | 82%  | 83%  | 76%  |                     |
|            | COP 18 Sustained           |                | APR 19           | 61%   | 88%   | 85%  | 59%   | 112% | 62%   | 50% | 59%   | 29% | 84%   | 49% | 94%   | 70%  | 79%   | 86%  | 63%  | 94%  | 73%  |                     |
|            | COP19 Sustained            |                | APR 20           | 88%   | 88%   | 88%  | 87%   | 87%  | 87%   | 87% | 87%   | 87% | 87%   | 87% | 87%   | 87%  | 87%   | 87%  | 87%  | 87%  | 87%  |                     |
| Blantyre   | COP 15                     |                | APR 16           | 38%   | 44%   | 45%  | 47%   | 34%  | 47%   | 34% | 66%   | 38% | 66%   | 38% | 77%   | 65%  | 77%   | 65%  | 71%  | 74%  | 62%  |                     |
|            | COP 16 Scale-Up Saturation |                | APR 17           | 44%   | 52%   | 53%  | 45%   | 35%  | 51%   | 34% | 72%   | 46% | 72%   | 45% | 79%   | 67%  | 74%   | 68%  | 68%  | 71%  | 65%  |                     |
|            | COP 17 Scale-Up Saturation |                | APR 18           | 51%   | 60%   | 62%  | 55%   | 42%  | 55%   | 42% | 72%   | 46% | 72%   | 46% | 80%   | 71%  | 80%   | 71%  | 76%  | 78%  | 69%  |                     |
|            | COP 18 Scale-Up Saturation |                | APR 19           | 72%   | 118%  | 116% | 65%   | 137% | 69%   | 62% | 77%   | 38% | 108%  | 65% | 116%  | 96%  | 84%   | 106% | 62%  | 97%  | 87%  |                     |
|            | COP19 Scale-Up Saturation  |                | APR 20           | 88%   | 88%   | 88%  | 91%   | 87%  | 91%   | 87% | 91%   | 87% | 91%   | 87% | 91%   | 87%  | 91%   | 87%  | 91%  | 87%  | 89%  |                     |
| Chikwawa   | COP 15                     |                | APR 16           | 50%   | 44%   | 42%  | 50%   | 37%  | 50%   | 37% | 70%   | 41% | 70%   | 41% | 79%   | 68%  | 79%   | 68%  | 74%  | 77%  | 66%  |                     |
|            | COP 16 Scale-Up Saturation |                | APR 17           | 59%   | 52%   | 49%  | 53%   | 45%  | 59%   | 41% | 77%   | 54% | 79%   | 53% | 86%   | 75%  | 81%   | 78%  | 73%  | 76%  | 72%  |                     |
|            | COP 17 Scale-Up Saturation |                | APR 18           | 68%   | 60%   | 57%  | 68%   | 56%  | 68%   | 56% | 81%   | 60% | 81%   | 60% | 87%   | 80%  | 87%   | 80%  | 84%  | 85%  | 78%  |                     |
|            | COP 18 Scale-Up Saturation |                | APR 19           | 90%   | 92%   | 89%  | 57%   | 106% | 70%   | 75% | 101%  | 47% | 125%  | 71% | 117%  | 96%  | 83%   | 100% | 61%  | 91%  | 89%  |                     |
|            | COP19 Scale-Up Saturation  |                | APR 20           | 100%  | 100%  | 100% | 96%   | 98%  | 96%   | 98% | 96%   | 98% | 96%   | 98% | 96%   | 98%  | 96%   | 98%  | 96%  | 98%  | 97%  |                     |
| Chiradzulu | COP 15                     |                | APR 16           | 47%   | 76%   | 71%  | 56%   | 42%  | 56%   | 42% | 74%   | 47% | 74%   | 47% | 83%   | 73%  | 83%   | 73%  | 78%  | 81%  | 71%  |                     |
|            | COP 16 Sustained           |                | APR 17           | 55%   | 89%   | 83%  | 59%   | 45%  | 62%   | 42% | 79%   | 56% | 80%   | 53% | 88%   | 75%  | 81%   | 77%  | 75%  | 78%  | 74%  |                     |
|            | COP 17 Sustained           |                | APR 18           | 63%   | 103%  | 96%  | 59%   | 47%  | 59%   | 47% | 75%   | 51% | 75%   | 51% | 83%   | 74%  | 83%   | 74%  | 79%  | 81%  | 75%  |                     |
|            | COP 18 Sustained           |                | APR 19           | 101%  | 145%  | 140% | 94%   | 179% | 99%   | 80% | 94%   | 46% | 134%  | 78% | 150%  | 111% | 125%  | 137% | 101% | 150% | 117% |                     |
|            | COP19 Scale-Up Aggressive  |                | APR 20           | 100%  | 100%  | 100% | 80%   | 87%  | 80%   | 87% | 80%   | 87% | 80%   | 87% | 80%   | 87%  | 80%   | 87%  | 80%  | 87%  | 83%  |                     |
| Chitipa    | COP 15                     |                | APR 16           | 47%   | 49%   | 63%  | 48%   | 35%  | 48%   | 35% | 67%   | 39% | 67%   | 39% | 78%   | 66%  | 78%   | 66%  | 72%  | 75%  | 65%  |                     |
|            | COP 16 Sustained           |                | APR 17           | 55%   | 57%   | 74%  | 56%   | 45%  | 61%   | 43% | 78%   | 55% | 76%   | 51% | 88%   | 73%  | 82%   | 79%  | 72%  | 76%  | 73%  |                     |
|            | COP 17 Sustained           |                | APR 18           | 63%   | 66%   | 86%  | 67%   | 55%  | 67%   | 55% | 80%   | 59% | 81%   | 59% | 86%   | 80%  | 86%   | 80%  | 83%  | 85%  | 78%  |                     |
|            | COP 18 Sustained           |                | APR 19           | 94%   | 136%  | 131% | 87%   | 165% | 91%   | 74% | 87%   | 43% | 124%  | 72% | 139%  | 103% | 116%  | 127% | 93%  | 138% | 108% |                     |
|            | COP19 Sustained            |                | APR 20           | 89%   | 89%   | 89%  | 89%   | 88%  | 89%   | 88% | 89%   | 88% | 89%   | 88% | 89%   | 88%  | 89%   | 88%  | 89%  | 88%  | 89%  |                     |
| Dedza      | COP 15                     |                | APR 16           | 41%   | 45%   | 44%  | 46%   | 33%  | 46%   | 33% | 65%   | 37% | 65%   | 37% | 76%   | 64%  | 76%   | 64%  | 70%  | 74%  | 63%  |                     |
|            | COP 16 Sustained           |                | APR 17           | 48%   | 53%   | 51%  | 47%   | 39%  | 53%   | 36% | 73%   | 47% | 74%   | 47% | 84%   | 71%  | 78%   | 74%  | 70%  | 74%  | 68%  |                     |
|            | COP 17 Sustained           |                | APR 18           | 56%   | 61%   | 59%  | 61%   | 49%  | 62%   | 49% | 77%   | 53% | 77%   | 53% | 84%   | 76%  | 84%   | 76%  | 80%  | 82%  | 74%  |                     |
|            | COP 18 Sustained           |                | APR 19           | 75%   | 108%  | 104% | 69%   | 131% | 72%   | 59% | 69%   | 34% | 98%   | 57% | 110%  | 81%  | 92%   | 100% | 74%  | 110% | 86%  |                     |
|            | COP19 Sustained            |                | APR 20           | 88%   | 88%   | 88%  | 84%   | 87%  | 84%   | 87% | 84%   | 87% | 84%   | 87% | 84%   | 87%  | 84%   | 87%  | 84%  | 87%  | 86%  |                     |

| SNU      | COP    | Prioritization      | Results Reported | Attained: 90-90-90 (81%) by Each Age and Sex Band to Reach 95-95-95 (90%) Overall |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      | Overall TX Coverage |
|----------|--------|---------------------|------------------|---|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|---------------------|
|          |        |                     |                  | Treatment Coverage at APR by Age and Sex  |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |                     |
|          |        |                     |                  | 0-9   | 10-14 |      | 15-19 |      | 20-24 |      | 25-29 |      | 30-34 |      | 35-39 |      | 40-49 |      | 50+  |      |      |                     |
|          |        |                     |                  | F   | M     | F    | M     | F    | M     | F    | M     | F    | M     | F    | M     | F    | M     | F    | M    |      |      |                     |
| Dowa     | COP 15 |                     | APR 16           | 38%   | 56%   | 35%  | 48%   | 35%  | 48%   | 35%  | 68%   | 39%  | 68%   | 39%  | 78%   | 66%  | 78%   | 66%  | 72%  | 75%  | 64%  |                     |
|          | COP 16 | Sustained           | APR 17           | 45%   | 66%   | 41%  | 48%   | 36%  | 54%   | 35%  | 74%   | 48%  | 74%   | 47%  | 83%   | 69%  | 77%   | 73%  | 69%  | 72%  | 68%  |                     |
|          | COP 17 | Sustained           | APR 18           | 52%   | 76%   | 48%  | 56%   | 43%  | 56%   | 43%  | 73%   | 47%  | 73%   | 47%  | 81%   | 72%  | 81%   | 72%  | 76%  | 79%  | 71%  |                     |
|          | COP 18 | Sustained           | APR 19           | 62%   | 90%   | 87%  | 57%   | 110% | 60%   | 49%  | 58%   | 28%  | 82%   | 48%  | 92%   | 68%  | 77%   | 84%  | 62%  | 92%  | 72%  |                     |
|          | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 73%   | 87%  | 73%   | 87%  | 73%   | 87%  | 73%   | 87%  | 73%   | 87%  | 73%   | 87%  | 73%  | 87%  | 79%  |                     |
| Karonga  | COP 15 |                     | APR 16           | 37%   | 44%   | 49%  | 50%   | 37%  | 50%   | 37%  | 69%   | 41%  | 69%   | 41%  | 79%   | 68%  | 79%   | 68%  | 74%  | 77%  | 65%  |                     |
|          | COP 16 | Sustained           | APR 17           | 44%   | 51%   | 57%  | 52%   | 42%  | 58%   | 39%  | 77%   | 52%  | 77%   | 51%  | 85%   | 73%  | 79%   | 75%  | 72%  | 76%  | 70%  |                     |
|          | COP 17 | Sustained           | APR 18           | 51%   | 60%   | 66%  | 61%   | 49%  | 61%   | 49%  | 77%   | 53%  | 77%   | 53%  | 84%   | 76%  | 84%   | 76%  | 80%  | 82%  | 74%  |                     |
|          | COP 18 | Sustained           | APR 19           | 68%   | 99%   | 95%  | 66%   | 126% | 69%   | 57%  | 66%   | 33%  | 94%   | 55%  | 106%  | 78%  | 88%   | 96%  | 71%  | 105% | 82%  |                     |
|          | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%  | 87%  | 88%  |                     |
| Kasungu  | COP 15 |                     | APR 16           | 32%   | 52%   | 53%  | 45%   | 32%  | 45%   | 32%  | 65%   | 36%  | 65%   | 36%  | 75%   | 63%  | 75%   | 63%  | 70%  | 73%  | 61%  |                     |
|          | COP 16 | Sustained           | APR 17           | 38%   | 61%   | 62%  | 51%   | 39%  | 56%   | 37%  | 75%   | 50%  | 75%   | 48%  | 83%   | 70%  | 77%   | 73%  | 69%  | 73%  | 68%  |                     |
|          | COP 17 | Sustained           | APR 18           | 44%   | 71%   | 72%  | 60%   | 47%  | 60%   | 47%  | 76%   | 51%  | 76%   | 51%  | 83%   | 75%  | 83%   | 75%  | 79%  | 81%  | 73%  |                     |
|          | COP 18 | Sustained           | APR 19           | 60%   | 87%   | 84%  | 55%   | 106% | 58%   | 48%  | 56%   | 28%  | 79%   | 46%  | 89%   | 66%  | 74%   | 81%  | 60%  | 89%  | 69%  |                     |
|          | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%  | 87%  | 86%  |                     |
| Likoma   | COP 15 |                     | APR 16           |   |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |                     |
|          | COP 16 | Sustained           | APR 17           | 58%   | 58%   | 59%  | 54%   | 45%  | 60%   | 42%  | 76%   | 53%  | 77%   | 47%  | 89%   | 76%  | 81%   | 77%  | 73%  | 77%  | 72%  |                     |
|          | COP 17 | Sustained           | APR 18           | 67%   | 67%   | 69%  | 66%   | 53%  | 66%   | 53%  | 80%   | 58%  | 80%   | 58%  | 86%   | 79%  | 86%   | 79%  | 83%  | 84%  | 77%  |                     |
|          | COP 18 | Sustained           | APR 19           | 201%  | 290%  | 279% | 124%  | 237% | 130%  | 106% | 124%  | 61%  | 177%  | 102% | 199%  | 147% | 166%  | 181% | 134% | 198% | 161% |                     |
|          | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%  | 87%  | 89%  |                     |
| Lilongwe | COP 15 |                     | APR 16           | 32%   | 38%   | 34%  | 49%   | 36%  | 49%   | 36%  | 69%   | 40%  | 69%   | 41%  | 79%   | 68%  | 78%   | 67%  | 72%  | 76%  | 63%  |                     |
|          | COP 16 | Scale-Up Saturation | APR 17           | 37%   | 44%   | 40%  | 47%   | 37%  | 53%   | 35%  | 74%   | 48%  | 74%   | 48%  | 81%   | 70%  | 75%   | 70%  | 68%  | 72%  | 66%  |                     |
|          | COP 17 | Scale-Up Saturation | APR 18           | 43%   | 51%   | 46%  | 57%   | 44%  | 57%   | 44%  | 73%   | 48%  | 73%   | 47%  | 81%   | 72%  | 81%   | 72%  | 78%  | 80%  | 70%  |                     |
|          | COP 18 | Scale-Up Saturation | APR 19           | 84%   | 117%  | 110% | 47%   | 112% | 78%   | 76%  | 96%   | 40%  | 128%  | 67%  | 129%  | 101% | 98%   | 105% | 65%  | 95%  | 94%  |                     |
|          | COP19  | Scale-Up Saturation | APR 20           | 88%   | 88%   | 88%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%   | 87%  | 91%  | 87%  | 89%  |                     |
| Machinga | COP 15 |                     | APR 16           | 42%   | 41%   | 39%  | 48%   | 35%  | 48%   | 35%  | 67%   | 39%  | 67%   | 39%  | 77%   | 66%  | 77%   | 66%  | 72%  | 75%  | 63%  |                     |
|          | COP 16 | Scale-Up Aggressive | APR 17           | 50%   | 48%   | 46%  | 56%   | 45%  | 60%   | 42%  | 79%   | 55%  | 80%   | 53%  | 86%   | 76%  | 80%   | 77%  | 73%  | 76%  | 72%  |                     |
|          | COP 17 | Scale-Up Aggressive | APR 18           | 57%   | 56%   | 53%  | 68%   | 56%  | 68%   | 56%  | 81%   | 60%  | 81%   | 60%  | 87%   | 81%  | 87%   | 81%  | 84%  | 86%  | 78%  |                     |
|          | COP 18 | Scale-Up Saturation | APR 19           | 81%   | 98%   | 108% | 61%   | 144% | 77%   | 67%  | 82%   | 31%  | 110%  | 51%  | 124%  | 94%  | 82%   | 113% | 64%  | 114% | 89%  |                     |
|          | COP19  | Scale-Up Saturation | APR 20           | 89%   | 89%   | 89%  | 97%   | 101% | 97%   | 101% | 97%   | 101% | 97%   | 101% | 97%   | 101% | 97%   | 101% | 97%  | 101% | 98%  |                     |

| SNU      | COP    | Prioritization      | Results Reported | Attained: 90-90-90 (81%) by Each Age and Sex Band to Reach 95-95-95 (90%) Overall |       |      |       |      |       |      |       |      |       |      |       |      |       |      |     |      |     | Overall TX Coverage |
|----------|--------|---------------------|------------------|---|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-----|------|-----|---------------------|
|          |        |                     |                  | Treatment Coverage at APR by Age and Sex  |       |      |       |      |       |      |       |      |       |      |       |      |       |      |     |      |     |                     |
|          |        |                     |                  | 0-9   | 10-14 |      | 15-19 |      | 20-24 |      | 25-29 |      | 30-34 |      | 35-39 |      | 40-49 |      | 50+ |      |     |                     |
|          |        |                     |                  | F   | M     | F    | M     | F    | M     | F    | M     | F    | M     | F    | M     | F    | M     | F    | M   |      |     |                     |
| Mangochi | COP 15 |                     | APR 16           | 49%   | 46%   | 35%  | 43%   | 31%  | 43%   | 31%  | 63%   | 34%  | 63%   | 34%  | 74%   | 62%  | 74%   | 62%  | 68% | 71%  | 60% |                     |
|          | COP 16 | Scale-Up Aggressive | APR 17           | 58%   | 54%   | 41%  | 50%   | 42%  | 55%   | 38%  | 74%   | 49%  | 75%   | 49%  | 83%   | 72%  | 78%   | 74%  | 71% | 74%  | 69% |                     |
|          | COP 17 | Scale-Up Aggressive | APR 18           | 67%   | 62%   | 48%  | 67%   | 55%  | 67%   | 55%  | 80%   | 59%  | 80%   | 59%  | 86%   | 80%  | 86%   | 80%  | 83% | 85%  | 77% |                     |
|          | COP 18 | Scale-Up Saturation | APR 19           | 82%   | 122%  | 82%  | 54%   | 131% | 68%   | 57%  | 95%   | 31%  | 117%  | 55%  | 122%  | 82%  | 92%   | 93%  | 73% | 106% | 89% |                     |
|          | COP19  | Scale-Up Saturation | APR 20           | 99%   | 99%   | 99%  | 98%   | 102% | 98%   | 102% | 98%   | 102% | 98%   | 102% | 98%   | 102% | 98%   | 102% | 98% | 102% | 99% |                     |
| Mchinji  | COP 15 |                     | APR 16           | 41%   | 52%   | 43%  | 51%   | 37%  | 51%   | 37%  | 70%   | 41%  | 70%   | 41%  | 79%   | 68%  | 79%   | 68%  | 74% | 77%  | 66% |                     |
|          | COP 16 | Sustained           | APR 17           | 49%   | 62%   | 50%  | 51%   | 43%  | 57%   | 40%  | 76%   | 52%  | 77%   | 52%  | 86%   | 73%  | 81%   | 77%  | 72% | 76%  | 70% |                     |
|          | COP 17 | Sustained           | APR 18           | 56%   | 71%   | 58%  | 65%   | 53%  | 65%   | 53%  | 79%   | 57%  | 79%   | 57%  | 85%   | 79%  | 85%   | 79%  | 82% | 84%  | 76% |                     |
|          | COP 18 | Sustained           | APR 19           | 83%   | 120%  | 116% | 76%   | 146% | 81%   | 66%  | 77%   | 38%  | 109%  | 63%  | 123%  | 91%  | 102%  | 112% | 83% | 122% | 96% |                     |
|          | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88%   | 87%  | 88% | 87%  | 88% |                     |
| Mulanje  | COP 15 |                     | APR 16           | 37%   | 36%   | 29%  | 50%   | 37%  | 50%   | 37%  | 69%   | 41%  | 69%   | 41%  | 79%   | 68%  | 79%   | 68%  | 74% | 77%  | 65% |                     |
|          | COP 16 | Scale-Up Saturation | APR 17           | 43%   | 43%   | 34%  | 60%   | 49%  | 63%   | 45%  | 80%   | 57%  | 82%   | 56%  | 87%   | 78%  | 82%   | 78%  | 76% | 79%  | 73% |                     |
|          | COP 17 | Scale-Up Saturation | APR 18           | 50%   | 49%   | 39%  | 70%   | 58%  | 70%   | 58%  | 83%   | 62%  | 83%   | 62%  | 88%   | 82%  | 88%   | 82%  | 85% | 87%  | 79% |                     |
|          | COP 18 | Scale-Up Saturation | APR 19           | 85%   | 132%  | 108% | 64%   | 127% | 71%   | 70%  | 91%   | 43%  | 125%  | 81%  | 126%  | 102% | 91%   | 104% | 71% | 92%  | 94% |                     |
|          | COP19  | Scale-Up Saturation | APR 20           | 88%   | 88%   | 88%  | 91%   | 92%  | 91%   | 92%  | 91%   | 92%  | 91%   | 92%  | 91%   | 92%  | 91%   | 92%  | 91% | 92%  | 91% |                     |
| Mwanza   | COP 15 |                     | APR 16           | 38%   | 46%   | 46%  | 52%   | 38%  | 51%   | 38%  | 70%   | 42%  | 70%   | 42%  | 80%   | 69%  | 80%   | 69%  | 75% | 78%  | 66% |                     |
|          | COP 16 | Sustained           | APR 17           | 45%   | 54%   | 54%  | 57%   | 46%  | 62%   | 43%  | 79%   | 56%  | 80%   | 54%  | 88%   | 77%  | 81%   | 77%  | 74% | 77%  | 72% |                     |
|          | COP 17 | Sustained           | APR 18           | 52%   | 62%   | 63%  | 66%   | 53%  | 66%   | 53%  | 80%   | 57%  | 80%   | 57%  | 86%   | 79%  | 86%   | 79%  | 83% | 84%  | 77% |                     |
|          | COP 18 | Sustained           | APR 19           | 79%   | 114%  | 109% | 72%   | 138% | 76%   | 62%  | 73%   | 36%  | 103%  | 60%  | 116%  | 86%  | 97%   | 106% | 78% | 115% | 90% |                     |
|          | COP19  | Sustained           | APR 20           | 93%   | 93%   | 93%  | 99%   | 95%  | 99%   | 95%  | 99%   | 95%  | 99%   | 95%  | 99%   | 95%  | 99%   | 95%  | 99% | 95%  | 97% |                     |
| Mzimba   | COP 15 |                     | APR 16           | 34%   | 55%   | 45%  | 51%   | 38%  | 51%   | 38%  | 70%   | 42%  | 70%   | 42%  | 80%   | 69%  | 80%   | 69%  | 74% | 77%  | 66% |                     |
|          | COP 16 | Scale-Up Saturation | APR 17           | 40%   | 64%   | 53%  | 48%   | 39%  | 55%   | 37%  | 76%   | 50%  | 76%   | 50%  | 84%   | 71%  | 78%   | 74%  | 71% | 74%  | 68% |                     |
|          | COP 17 | Scale-Up Saturation | APR 18           | 47%   | 74%   | 61%  | 59%   | 46%  | 59%   | 46%  | 75%   | 51%  | 75%   | 51%  | 83%   | 74%  | 83%   | 74%  | 79% | 81%  | 72% |                     |
|          | COP 18 | Scale-Up Saturation | APR 19           | 75%   | 145%  | 124% | 68%   | 153% | 69%   | 55%  | 80%   | 35%  | 112%  | 60%  | 131%  | 84%  | 112%  | 100% | 88% | 129% | 97% |                     |
|          | COP19  | Scale-Up Saturation | APR 20           | 88%   | 88%   | 88%  | 90%   | 87%  | 90%   | 87%  | 90%   | 87%  | 90%   | 87%  | 90%   | 87%  | 90%   | 87%  | 90% | 87%  | 89% |                     |
| Neno     | COP 15 |                     | APR 16           | 48%   | 58%   | 55%  | 60%   | 46%  | 60%   | 46%  | 77%   | 50%  | 77%   | 50%  | 85%   | 76%  | 85%   | 76%  | 81% | 83%  | 73% |                     |
|          | COP 16 | Sustained           | APR 17           | 56%   | 68%   | 65%  | 63%   | 50%  | 69%   | 48%  | 85%   | 63%  | 84%   | 60%  | 89%   | 79%  | 83%   | 81%  | 77% | 79%  | 77% |                     |
|          | COP 17 | Sustained           | APR 18           | 65%   | 79%   | 75%  | 66%   | 54%  | 66%   | 54%  | 80%   | 58%  | 80%   | 58%  | 86%   | 79%  | 86%   | 79%  | 83% | 85%  | 78% |                     |
|          | COP 18 | Sustained           | APR 19           | 64%   | 92%   | 89%  | 58%   | 112% | 62%   | 50%  | 59%   | 29%  | 84%   | 48%  | 94%   | 69%  | 78%   | 85%  | 63% | 93%  | 73% |                     |
|          | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85%   | 87%  | 85% | 87%  | 86% |                     |

| SNU         | COP    | Prioritization      | Results Reported | Attained: 90-90-90 (81%) by Each Age and Sex Band to Reach 95-95-95 (90%) Overall |      |       |     |       |     |       |      |       |      |       |      |       |     |       |     |      |     | Overall TX Coverage |
|-------------|--------|---------------------|------------------|---|------|-------|-----|-------|-----|-------|------|-------|------|-------|------|-------|-----|-------|-----|------|-----|---------------------|
|             |        |                     |                  | Treatment Coverage at APR by Age and Sex  |      |       |     |       |     |       |      |       |      |       |      |       |     |       |     |      |     |                     |
|             |        |                     |                  | 0-9   |      | 10-14 |     | 15-19 |     | 20-24 |      | 25-29 |      | 30-34 |      | 35-39 |     | 40-49 |     | 50+  |     |                     |
|             |        |                     | F                | M   | F    | M     | F   | M     | F   | M     | F    | M     | F    | M     | F    | M     | F   | M     |     |      |     |                     |
| Nkhata-bay  | COP 15 |                     | APR 16           | 30%   | 46%  | 36%   | 49% | 36%   | 49% | 36%   | 68%  | 40%   | 68%  | 40%   | 78%  | 67%   | 78% | 67%   | 73% | 76%  | 64% |                     |
|             | COP 16 | Sustained           | APR 17           | 35%   | 54%  | 42%   | 51% | 41%   | 56% | 38%   | 75%  | 50%   | 75%  | 49%   | 84%  | 71%   | 80% | 75%   | 71% | 75%  | 68% |                     |
|             | COP 17 | Sustained           | APR 18           | 41%   | 62%  | 49%   | 60% | 48%   | 60% | 48%   | 76%  | 52%   | 76%  | 52%   | 83%  | 75%   | 83% | 75%   | 79% | 81%  | 72% |                     |
|             | COP 18 | Sustained           | APR 19           | 73%   | 106% | 102%  | 67% | 129%  | 71% | 58%   | 68%  | 33%   | 96%  | 56%   | 108% | 80%   | 90% | 99%   | 73% | 108% | 84% |                     |
|             | COP19  | Sustained           | APR 20           | 88%   | 88%  | 88%   | 83% | 87%   | 83% | 87%   | 83%  | 87%   | 83%  | 87%   | 83%  | 87%   | 83% | 87%   | 83% | 87%  | 85% |                     |
| Nkhota-kota | COP 15 |                     | APR 16           | 31%   | 41%  | 32%   | 47% | 34%   | 47% | 34%   | 66%  | 38%   | 66%  | 38%   | 77%  | 65%   | 77% | 65%   | 71% | 74%  | 62% |                     |
|             | COP 16 | Sustained           | APR 17           | 36%   | 48%  | 38%   | 54% | 40%   | 58% | 39%   | 77%  | 52%   | 77%  | 49%   | 85%  | 71%   | 78% | 74%   | 70% | 74%  | 69% |                     |
|             | COP 17 | Sustained           | APR 18           | 42%   | 56%  | 44%   | 60% | 47%   | 60% | 47%   | 76%  | 51%   | 76%  | 51%   | 83%  | 75%   | 83% | 75%   | 79% | 81%  | 72% |                     |
|             | COP 18 | Sustained           | APR 19           | 63%   | 91%  | 88%   | 59% | 112%  | 62% | 50%   | 59%  | 29%   | 84%  | 49%   | 94%  | 70%   | 78% | 86%   | 63% | 94%  | 73% |                     |
|             | COP19  | Sustained           | APR 20           | 88%   | 88%  | 88%   | 82% | 87%   | 82% | 87%   | 82%  | 87%   | 82%  | 87%   | 82%  | 87%   | 82% | 87%   | 82% | 87%  | 84% |                     |
| Nsanje      | COP 15 |                     | APR 16           | 53%   | 43%  | 48%   | 51% | 38%   | 51% | 38%   | 70%  | 42%   | 70%  | 42%   | 80%  | 69%   | 80% | 69%   | 75% | 77%  | 67% |                     |
|             | COP 16 | Sustained           | APR 17           | 62%   | 51%  | 56%   | 54% | 46%   | 59% | 41%   | 76%  | 53%   | 78%  | 51%   | 87%  | 76%   | 81% | 78%   | 74% | 78%  | 72% |                     |
|             | COP 17 | Sustained           | APR 18           | 72%   | 58%  | 65%   | 65% | 53%   | 65% | 53%   | 80%  | 57%   | 80%  | 57%   | 86%  | 79%   | 86% | 79%   | 82% | 84%  | 77% |                     |
|             | COP 18 | Sustained           | APR 19           | 64%   | 93%  | 89%   | 66% | 125%  | 69% | 56%   | 66%  | 33%   | 94%  | 54%   | 105% | 78%   | 88% | 96%   | 71% | 105% | 81% |                     |
|             | COP19  | Sustained           | APR 20           | 91%   | 91%  | 91%   | 92% | 96%   | 92% | 96%   | 92%  | 96%   | 92%  | 96%   | 92%  | 96%   | 92% | 96%   | 92% | 96%  | 93% |                     |
| Ntcheu      | COP 15 |                     | APR 16           | 37%   | 50%  | 50%   | 45% | 33%   | 45% | 33%   | 65%  | 36%   | 65%  | 36%   | 76%  | 64%   | 76% | 64%   | 70% | 73%  | 62% |                     |
|             | COP 16 | Sustained           | APR 17           | 44%   | 59%  | 59%   | 59% | 44%   | 62% | 44%   | 78%  | 55%   | 78%  | 51%   | 87%  | 74%   | 80% | 75%   | 73% | 76%  | 72% |                     |
|             | COP 17 | Sustained           | APR 18           | 50%   | 68%  | 68%   | 66% | 54%   | 66% | 54%   | 80%  | 58%   | 80%  | 58%   | 86%  | 79%   | 86% | 79%   | 83% | 85%  | 78% |                     |
|             | COP 18 | Sustained           | APR 19           | 68%   | 98%  | 95%   | 63% | 120%  | 66% | 54%   | 63%  | 31%   | 89%  | 52%   | 100% | 74%   | 84% | 91%   | 68% | 100% | 78% |                     |
|             | COP19  | Sustained           | APR 20           | 88%   | 88%  | 88%   | 89% | 88%   | 89% | 88%   | 89%  | 88%   | 89%  | 88%   | 89%  | 88%   | 89% | 88%   | 89% | 88%  | 89% |                     |
| Ntchisi     | COP 15 |                     | APR 16           | 30%   | 41%  | 42%   | 49% | 36%   | 49% | 36%   | 68%  | 40%   | 68%  | 40%   | 78%  | 67%   | 78% | 67%   | 73% | 76%  | 64% |                     |
|             | COP 16 | Sustained           | APR 17           | 35%   | 48%  | 50%   | 54% | 41%   | 59% | 40%   | 78%  | 53%   | 76%  | 50%   | 85%  | 71%   | 79% | 75%   | 71% | 74%  | 70% |                     |
|             | COP 17 | Sustained           | APR 18           | 41%   | 55%  | 58%   | 60% | 47%   | 60% | 47%   | 76%  | 51%   | 76%  | 52%   | 83%  | 75%   | 83% | 75%   | 79% | 81%  | 73% |                     |
|             | COP 18 | Sustained           | APR 19           | 76%   | 110% | 106%  | 70% | 134%  | 74% | 60%   | 70%  | 35%   | 100% | 58%   | 113% | 83%   | 94% | 102%  | 76% | 112% | 88% |                     |
|             | COP19  | Sustained           | APR 20           | 88%   | 88%  | 88%   | 73% | 87%   | 73% | 87%   | 73%  | 87%   | 73%  | 87%   | 73%  | 87%   | 73% | 87%   | 73% | 87%  | 79% |                     |
| Phalombe    | COP 15 |                     | APR 16           | 50%   | 43%  | 34%   | 53% | 39%   | 53% | 39%   | 71%  | 43%   | 71%  | 43%   | 81%  | 70%   | 73% | 70%   | 76% | 79%  | 67% |                     |
|             | COP 16 | Scale-Up Saturation | APR 17           | 58%   | 50%  | 41%   | 58% | 50%   | 63% | 45%   | 81%  | 58%   | 83%  | 58%   | 86%  | 78%   | 82% | 79%   | 76% | 79%  | 74% |                     |
|             | COP 17 | Scale-Up Saturation | APR 18           | 67%   | 58%  | 47%   | 72% | 60%   | 72% | 60%   | 84%  | 64%   | 84%  | 64%   | 88%  | 83%   | 88% | 83%   | 86% | 87%  | 80% |                     |
|             | COP 18 | Scale-Up Saturation | APR 19           | 92%   | 105% | 85%   | 51% | 82%   | 68% | 80%   | 101% | 55%   | 131% | 77%   | 128% | 99%   | 86% | 85%   | 62% | 75%  | 89% |                     |
|             | COP19  | Scale-Up Saturation | APR 20           | 92%   | 92%  | 92%   | 93% | 101%  | 93% | 101%  | 93%  | 101%  | 93%  | 101%  | 93%  | 101%  | 93% | 101%  | 93% | 101% | 96% |                     |



| SNU    | COP    | Prioritization      | Results Reported | Attained: 90-90-90 (81%) by Each Age and Sex Band to Reach 95-95-95 (90%) Overall |       |      |       |      |       |     |       |     |       |     |       |      |       |      |     |      |                     |
|--------|--------|---------------------|------------------|---|-------|------|-------|------|-------|-----|-------|-----|-------|-----|-------|------|-------|------|-----|------|---------------------|
|        |        |                     |                  | Treatment Coverage at APR by Age and Sex  |       |      |       |      |       |     |       |     |       |     |       |      |       |      |     |      | Overall TX Coverage |
|        |        |                     |                  | 0-9   | 10-14 |      | 15-19 |      | 20-24 |     | 25-29 |     | 30-34 |     | 35-39 |      | 40-49 |      | 50+ |      |                     |
|        |        |                     |                  |   | F     | M    | F     | M    | F     | M   | F     | M   | F     | M   | F     | M    | F     | M    |     |      |                     |
| Rumphi | COP 15 |                     | APR 16           | 32%   | 53%   | 51%  | 54%   | 41%  | 54%   | 41% | 73%   | 45% | 73%   | 45% | 82%   | 72%  | 82%   | 72%  | 77% | 80%  | 68%                 |
|        | COP 16 | Sustained           | APR 17           | 38%   | 62%   | 59%  | 54%   | 43%  | 61%   | 41% | 79%   | 55% | 78%   | 52% | 88%   | 74%  | 81%   | 77%  | 73% | 76%  | 72%                 |
|        | COP 17 | Sustained           | APR 18           | 44%   | 71%   | 69%  | 61%   | 48%  | 61%   | 48% | 76%   | 52% | 76%   | 52% | 83%   | 76%  | 83%   | 76%  | 80% | 82%  | 74%                 |
|        | COP 18 | Sustained           | APR 19           | 89%   | 128%  | 124% | 78%   | 150% | 83%   | 67% | 79%   | 39% | 112%  | 65% | 126%  | 93%  | 105%  | 115% | 85% | 125% | 98%                 |
|        | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 80%   | 87%  | 80%   | 87% | 80%   | 87% | 80%   | 87% | 80%   | 87%  | 80%   | 87%  | 80% | 87%  | 83%                 |
| Salima | COP 15 |                     | APR 16           | 49%   | 37%   | 33%  | 49%   | 36%  | 49%   | 36% | 68%   | 40% | 68%   | 40% | 78%   | 67%  | 78%   | 67%  | 73% | 76%  | 65%                 |
|        | COP 16 | Sustained           | APR 17           | 57%   | 43%   | 39%  | 56%   | 44%  | 61%   | 42% | 79%   | 55% | 79%   | 54% | 86%   | 75%  | 80%   | 77%  | 72% | 76%  | 72%                 |
|        | COP 17 | Sustained           | APR 18           | 66%   | 50%   | 45%  | 66%   | 54%  | 66%   | 54% | 80%   | 58% | 80%   | 58% | 86%   | 79%  | 86%   | 79%  | 83% | 85%  | 77%                 |
|        | COP 18 | Sustained           | APR 19           | 79%   | 114%  | 110% | 73%   | 139% | 77%   | 62% | 73%   | 36% | 104%  | 60% | 117%  | 86%  | 97%   | 106% | 78% | 116% | 91%                 |
|        | COP19  | Sustained           | APR 20           | 88%   | 88%   | 88%  | 90%   | 89%  | 90%   | 89% | 90%   | 89% | 90%   | 89% | 90%   | 89%  | 90%   | 89%  | 90% | 89%  | 89%                 |
| Thyolo | COP 15 |                     | APR 16           | 37%   | 45%   | 46%  | 52%   | 38%  | 52%   | 38% | 71%   | 42% | 71%   | 42% | 80%   | 69%  | 80%   | 69%  | 75% | 78%  | 66%                 |
|        | COP 16 | Scale-Up Saturation | APR 17           | 43%   | 53%   | 54%  | 59%   | 45%  | 62%   | 42% | 79%   | 55% | 78%   | 53% | 84%   | 75%  | 81%   | 77%  | 75% | 77%  | 72%                 |
|        | COP 17 | Scale-Up Saturation | APR 18           | 50%   | 62%   | 63%  | 63%   | 50%  | 63%   | 50% | 78%   | 55% | 78%   | 55% | 84%   | 77%  | 84%   | 77%  | 81% | 83%  | 75%                 |
|        | COP 18 | Scale-Up Saturation | APR 19           | 78%   | 131%  | 134% | 95%   | 162% | 103%  | 68% | 72%   | 38% | 105%  | 62% | 126%  | 104% | 102%  | 119% | 79% | 117% | 98%                 |
|        | COP19  | Scale-Up Saturation | APR 20           | 88%   | 88%   | 88%  | 90%   | 87%  | 90%   | 87% | 90%   | 87% | 90%   | 87% | 90%   | 87%  | 90%   | 87%  | 90% | 87%  | 89%                 |
| Zomba  | COP 15 |                     | APR 16           | 46%   | 43%   | 46%  | 47%   | 34%  | 47%   | 34% | 67%   | 38% | 66%   | 38% | 77%   | 65%  | 77%   | 65%  | 71% | 74%  | 63%                 |
|        | COP 16 | Scale-Up Saturation | APR 17           | 54%   | 51%   | 54%  | 53%   | 41%  | 57%   | 39% | 75%   | 51% | 77%   | 49% | 84%   | 71%  | 78%   | 73%  | 72% | 74%  | 70%                 |
|        | COP 17 | Scale-Up Saturation | APR 18           | 62%   | 58%   | 62%  | 61%   | 49%  | 61%   | 48% | 76%   | 52% | 76%   | 52% | 83%   | 75%  | 84%   | 75%  | 81% | 82%  | 74%                 |
|        | COP 18 | Scale-Up Saturation | APR 19           | 79%   | 107%  | 102% | 57%   | 117% | 60%   | 55% | 76%   | 35% | 108%  | 54% | 123%  | 81%  | 94%   | 91%  | 84% | 98%  | 87%                 |
|        | COP19  | Scale-Up Saturation | APR 20           | 89%   | 89%   | 89%  | 89%   | 88%  | 89%   | 88% | 89%   | 88% | 89%   | 88% | 89%   | 88%  | 89%   | 88%  | 89% | 88%  | 89%                 |

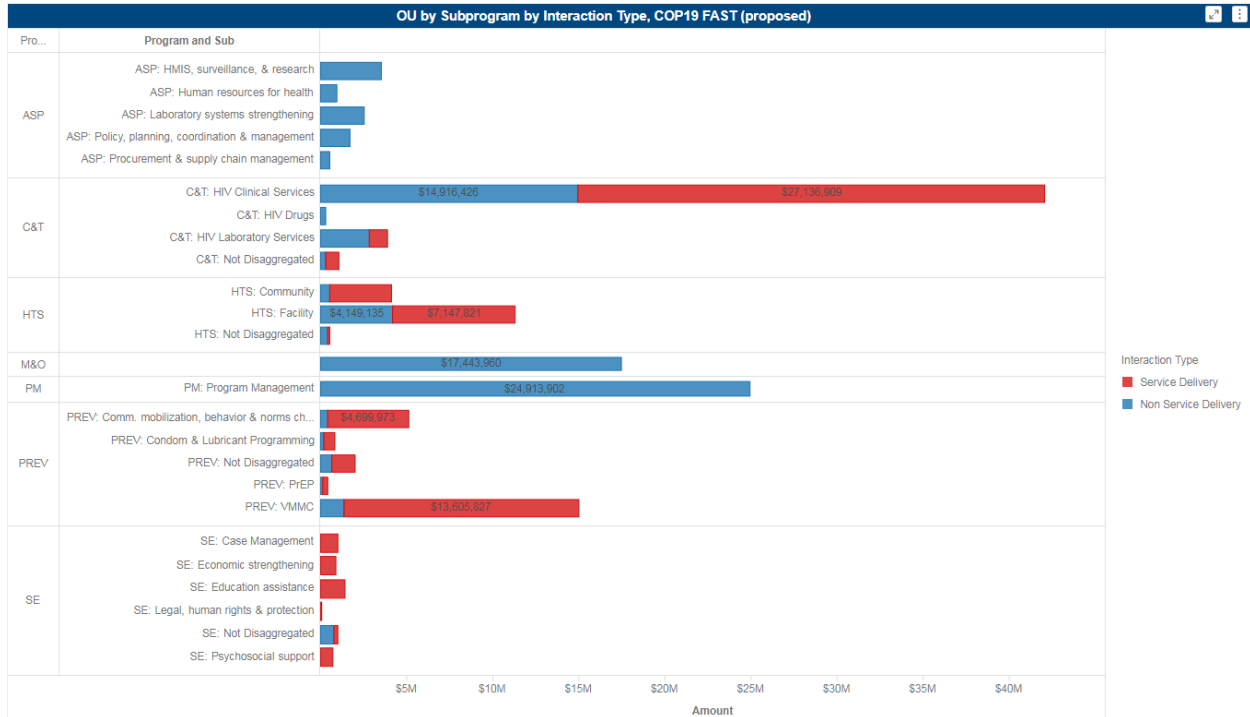
| Table A.2 ART Targets by Prioritization for Epidemic Control |                  |                                    |  |   |  |                       |
|--|------------------|------------------------------------|--|---|--|-----------------------|
| Prioritization Area  | Total PLHIV      | Expected current on ART (APR FY19) | Additional PLHIV required for 90% ART coverage | Target current on ART (APR FY20) <i>TX_CURR</i> | Newly initiated (APR FY20) <i>TX_NEW</i> | ART Coverage (APR 20) |
| Attained   |                  |                                    |  |   |  |                       |
| Scale-Up Saturation  | 741,324          | 609,691                            | 57,500   | 695,013   | 94,929                                   | 94%                   |
| Scale-Up Aggressive  | 35,485           | 27,175                             | 4,762  | 30,310  | 3,484                                    | 85%                   |
| Sustained  | 285,922          | 230,886                            | 26,444   | 255,040   | 26,837                                   | 89%                   |
| Central Support  |                  |                                    |  |   |  |                       |
| Commodities (if not included in previous categories)         |                  |                                    |  |   |  |                       |
| <b>Total</b>   | <b>1,062,731</b> | <b>867,752</b>                     | <b>88,706</b>                                  | <b>980,439</b>                                  | <b>125,233</b>                           | <b>92%</b>            |



# APPENDIX B – Budget Profile and Resource Projections

## B1. COP 19 Planned Spending

**Table B.1.1 COP19 Budget by Program Area**



**Table B.1.2 COP19 Total Planning Level**

| Applied Pipeline | New Funding      | Total Spend      |
|------------------|------------------|------------------|
| \$US 13,300,315  | \$US 127,259,685 | \$US 140,560,000 |

| Table B.1.3 Resource Allocation by PEPFAR Budget Code (new funds only) |   |                      |
|--|---|----------------------|
| PEPFAR Budget Code   | Budget Code Description                 | Amount Allocated     |
| APPLIED PIPELINE   |   | \$13,300,315         |
| CIRC   | Male Circumcision                       | \$9,875,227          |
| HBHC   | Adult Care and Support                  | \$7,610,118          |
| HKID   | Orphans and Vulnerable Children         | \$6,038,923          |
| HLAB   | Lab                                     | \$1,737,056          |
| HMBL   | Blood Safety                            | \$100,000            |
| HMIN   | Injection Safety                        | \$0                  |
| HTXD   | ARV Drugs                               | \$250,824            |
| HTXS   | Adult Treatment                         | \$48,765,036         |
| HVAB   | Abstinence/Be Faithful Prevention/Youth | \$3,942,493          |
| HVCT   | Counseling and Testing                  | \$12,986,467         |
| HVMS   | Management and Operations               | \$7,789,207          |
| HVOP   | Other Sexual Prevention                 | \$5,134,741          |
| HVSI   | Strategic Information                   | \$2,303,432          |
| HVTB   | TB/HIV Care                             | \$5,928,036          |
| IDUP   | Injecting and Non-Injecting Drug Use    | \$0                  |
| MTCT   | Mother to Child Transmission            | \$1,849,598          |
| OHSS   | Health Systems Strengthening            | \$1,549,244          |
| PDCS   | Pediatric Care and Support              | \$4,138,522          |
| PDTX   | Pediatric Treatment                     | \$9,860,694          |
| <b>TOTAL</b>   |   | <b>\$143,159,933</b> |

## B.2 Resource Projections

Malawi used a program-based, incremental budget approach (Funding Allocation to Strategy Tool - FAST) to develop the COP19 budgets by implementing mechanisms, management efficiency, and operating costs. This inter-agency process took into consideration the following sources of information:

- Base funding from COP18 complemented by critical review of work plans and interventions in consultation with implementing partners to account for the COP19 strategy across beneficiary, population and geographic areas;
- Flat line budgeting based with no major shifts in geographic prioritization;
- MOH and implementer performance reports to refine lessons learned, identify innovations and best practices to replicate/scale-up, and strategies to de-emphasize; doing more with less money to reflect implementation with fidelity;
- 2017 PEPFAR Expenditure Reporting (ER) data and unit expenditures, partner financial data and estimates, pilot data for new activities, pipeline and outlay review, and standard cost databases (salary scales, unit price lists) to tease out cost drivers for major activities (such as health facility staff, lay cadre, trainings, etc.);
- Priorities for scale-up e.g., back-to-care, VAPN, PrEP, new scale-up guidelines, etc.;
- Policy Changes: Budget shifts have been made to reflect investment to address programmatic shifts and policy approvals (support implementation of VAPN, self-testing, PrEP); and,
- New initiative guidance such as for Faith-Based Initiative Funds, with activities budgeted by Program Area (50% C and T and 50% Prevention).

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| Project ID | Project Name    | Project Manager | Start Date | Current Progress (%) | Project Budget (USD) | Initial Budget (USD) | Project Description   | Project Status | Project Type         | Project Location | Project Duration (Days) | Project Start Date | Project End Date | Current Budget (USD) | Current Progress (%) | Current Status | Current Notes   |
|------------|-----------------|-----------------|------------|----------------------|----------------------|----------------------|---|----------------|----------------------|------------------|-------------------------|--------------------|------------------|----------------------|----------------------|----------------|---|
| 001        | Project Alpha   | John Doe        | 2023-01-01 | 100%                 | 1000000              | 1000000              | Project Alpha: Development of a new software application for Project X.   | Completed      | Software Development | Project X        | 30                      | 2023-01-01         | 2023-01-31       | 1000000              | 100%                 | Completed      | Project Alpha: Development of a new software application for Project X.   |
| 002        | Project Beta    | Jane Smith      | 2023-02-01 | 80%                  | 800000               | 800000               | Project Beta: Development of a new software application for Project Y.    | In Progress    | Software Development | Project Y        | 45                      | 2023-02-01         | 2023-03-15       | 800000               | 80%                  | In Progress    | Project Beta: Development of a new software application for Project Y.    |
| 003        | Project Gamma   | Mike Johnson    | 2023-03-01 | 60%                  | 600000               | 600000               | Project Gamma: Development of a new software application for Project Z.   | In Progress    | Software Development | Project Z        | 60                      | 2023-03-01         | 2023-04-15       | 600000               | 60%                  | In Progress    | Project Gamma: Development of a new software application for Project Z.   |
| 004        | Project Delta   | Sarah Lee       | 2023-04-01 | 40%                  | 400000               | 400000               | Project Delta: Development of a new software application for Project A.   | In Progress    | Software Development | Project A        | 75                      | 2023-04-01         | 2023-05-15       | 400000               | 40%                  | In Progress    | Project Delta: Development of a new software application for Project A.   |
| 005        | Project Epsilon | David Kim       | 2023-05-01 | 20%                  | 200000               | 200000               | Project Epsilon: Development of a new software application for Project B. | In Progress    | Software Development | Project B        | 90                      | 2023-05-01         | 2023-06-15       | 200000               | 20%                  | In Progress    | Project Epsilon: Development of a new software application for Project B. |
| 006        | Project Zeta    | Emily White     | 2023-06-01 | 10%                  | 100000               | 100000               | Project Zeta: Development of a new software application for Project C.    | In Progress    | Software Development | Project C        | 105                     | 2023-06-01         | 2023-07-15       | 100000               | 10%                  | In Progress    | Project Zeta: Development of a new software application for Project C.    |
| 007        | Project Eta     | Chris Brown     | 2023-07-01 | 5%                   | 50000                | 50000                | Project Eta: Development of a new software application for Project D.     | In Progress    | Software Development | Project D        | 120                     | 2023-07-01         | 2023-08-15       | 50000                | 5%                   | In Progress    | Project Eta: Development of a new software application for Project D.     |
| 008        | Project Theta   | Alex Green      | 2023-08-01 | 0%                   | 0                    | 0                    | Project Theta: Development of a new software application for Project E.   | Not Started    | Software Development | Project E        | 135                     | 2023-08-01         | 2023-09-15       | 0                    | 0%                   | Not Started    | Project Theta: Development of a new software application for Project E.   |
| 009        | Project Iota    | Mia Black       | 2023-09-01 | 0%                   | 0                    | 0                    | Project Iota: Development of a new software application for Project F.    | Not Started    | Software Development | Project F        | 150                     | 2023-09-01         | 2023-10-15       | 0                    | 0%                   | Not Started    | Project Iota: Development of a new software application for Project F.    |
| 010        | Project Kappa   | Noah Grey       | 2023-10-01 | 0%                   | 0                    | 0                    | Project Kappa: Development of a new software application for Project G.   | Not Started    | Software Development | Project G        | 165                     | 2023-10-01         | 2023-11-15       | 0                    | 0%                   | Not Started    | Project Kappa: Development of a new software application for Project G.   |

## APPENDIX D – Minimum Program Requirements REQUIRED

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| 1. Adoption and implementation of Test and Start with demonstrable access across all age, sex, and risk groups (required in COP16).   | Test and Start services are available in all ART sites.  |
| 2. Adoption and implementation of differentiated service delivery models, including six-month multi-month scripting (MMS) and delivery models to improve identification and ARV coverage of men and adolescents (required in COP16).                | Malawi has offered three-month dispensing for several years. Six-month multi-month dispensing services will be available beginning April 2019. Other differentiated service delivery models such as Teen Clubs and Advanced Patient Care are already underway.   |
| 3. Completion of TLD transition, including consideration for women of childbearing potential and adolescents, and removal of Nevirapine-based regimens (required in COP18).   | Malawi began transition to TLD in January 2019. PEPFAR will support the complete transition to TLD including women of childbearing age. The goal is to reach 90% of all PLHIV cohort on DTG containing regimens by January 2020. PEPFAR will ensure that no Nevirapine containing formulations (except for PMTCT) are used beyond September 30, 2019 and following phase-out of NVP-based adult and pediatric formulations, PEPFAR will support safe disposal of all remaining NVP-based formulations. |
| 4. Scale up of index testing and self-testing, and enhanced pediatric and adolescent case finding, ensuring consent procedures, and confidentiality protection and establishment of intimate partner violence (IPV) monitoring (required in COP18). | Active index testing will be scaled up to all PEPFAR supported scale-up sites (10 districts) in FY19. In COP19, PEPFAR will strengthen implementation fidelity in the scale-up districts and further roll-out services to high volume facilities in sustained districts. PEPFAR will work with MOH and IPs to ensure IPV screening for all index clients, with a functional adverse event monitoring system.   |
| 5. TB preventive treatment (TPT) for all PLHIV must be scaled-up as an integral and routine part of the HIV clinical care package (required in COP18).  | PEPFAR will continue supporting isoniazid-based TPT services in five high burden TB districts. PEPFAR will collaborate with KNCV through UNITAID funding and MOH to implement 3 month isoniazid rifapentine (3HP) in five additional districts. IPs will also support the integration of 3HP in DSD models. The goal is to reach all PLHIV with TPT (preferably 3HP, pending price reductions) in COP20.   |

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| 6. Direct and immediate (>95%) linkage of clients from testing to treatment across age, sex, and risk groups.  | PEPFAR will aim to achieve >95% linkage rate by strengthening its current linkage systems with special focus to young people whose current linkage rates are much lower than adult men and women.  |
| 7. Elimination of all formal and informal user fees in the public sector for access to all direct HIV services and related services, such as ANC, TB, and routine clinical services, affecting access to HIV testing and treatment and prevention (required in COP17 and COP18).   | Malawi's policy does not allow user fees to be charged for HIV services. All HIV services in public facilities are currently free of charge.   |
| 8. Completion of viral load/EID optimization activities and ongoing monitoring to ensure reductions in morbidity and mortality across age, sex, and risk groups, including >80% access to annual viral load testing and reporting.   | PEPFAR will intensify its site-level analyses to identify specific bottlenecks to viral load/EID scale-up. PEPFAR will implement tailored interventions by using quality improvement approaches and through a national Tizirombo Tochepe= Thanzi T=T campaign to increase viral load coverage and suppression levels.  |
| 9. Monitoring and reporting of morbidity and mortality outcomes including infectious and non-infectious morbidity (required in COP18).   | Through the scale-up of EMRS and active tracing systems for PLHIV who missed their appointments or defaulted from care, PEPFAR will closely monitor morbidity and mortality outcomes using case based surveillance.  |
| 10. Alignment of OVC packages of services and enrollment to provide comprehensive prevention and treatment services to OVC ages 0-17, with particular focus on adolescent girls in high HIV-burden areas, 9-14 year-old girls and boys in regard to primary prevention of sexual violence and HIV, and children and adolescents living with HIV who require socioeconomic support, including integrated case management (required in COP17 and COP18). | Through direct service delivery, PEPFAR Malawi will provide comprehensive HIV impact-mitigation, prevention, and treatment services to OVC (aged 0-17) and their households to address contributing factors to vulnerability. Activities will span four domains (healthy, safe, stable, and schooled) coordinated through robust case management efforts. Adolescents continue to be a focus; hence, COP19 includes a deliberate increase of targets for OVC in the 10 -17 age groups with a special focus on preventing sexual violence and HIV among 9-14 year old girls and boys. |
| 11. Evidence of resource commitments by host governments with year after year increases (required in COP14).   | Sustainable financing of HIV/TB services is a priority and frequent topic of conversation between the U.S. Government, the Government of Malawi, and the Global Fund stakeholders. Under the prior Global Fund grant, Malawi contributed \$11 million in co-financing and willingness to pay. The contribution under the current grant requires \$33 million in Malawian co-financing.   |

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| 12. Clear evidence of agency progress toward local, indigenous partner prime funding (required in COP18). | In 2018, PEPFAR Malawi budgeted \$38,042,485 for local organizations <sup>40</sup> . In 2019, this amount will increase due to new awards targeted for local organizations.  |
| 13. Scale up of unique identifiers for PLHIV across all sites.  | PEPFAR Malawi is making good progress toward deploying a national unique identifier for all PLHIV, and has supported the MOH in developing a system, with technical support from BHT, that has the ability to uniquely identify PLHIV and trace them as they move between facilities in Malawi. This system has been tested and is currently being scaled up to all sites with electronic medical records systems. |

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<sup>40</sup> For PEPFAR's definition of "local partner", please refer to the "PEPFAR 2019 Country Operational Plan Guidance" Page 80 "Definition of a Local Partner" section here: <https://www.pepfar.gov/documents/organization/288160.pdf>

## APPENDIX E – Addressing Gaps to Epidemic Control including through Communities of Faith Receiving Central Funds

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Malawi receives \$14 million in Central Funds as part of the Faith-Based Organizations Initiative (captured outside of the COP19 budget). Per the guidance, 50% will be invested in case-finding, treatment initiation, and VL suppression for young adult men, adolescents, and children living with HIV; and 50% will be invested in primary prevention of sexual violence and HIV among children ages 9-14 years. These interventions will be implemented through current and new mechanisms with a focus on programming through existing local faith-based service delivery organizations, religious mother bodies and their networks, and through engagement of traditional leaders.

Efforts to strengthen HIV case finding will enhance existing programming to scale efficient HIV testing modalities and ART initiation and retention, particularly among men, those not yet on treatment, or those who have defaulted from treatment. Faith communities, with their extensive influence and reach in Malawi, will raise awareness and acceptability of early HIV testing (including index testing and HIV self-testing) and treatment as prevention. FBO engagement will improve the persistent challenge of uptake of partner testing under VAPN. To date, less than 30% of partners identified have presented for HIV testing and repeated home visits are time-intensive and costly. Low uptake of index testing services is a missed opportunity for case finding, particularly for men, and for disclosure within couples and families, which can improve treatment adherence. Self-testing is another new HIV case finding innovation being introduced nationally. PEPFAR support will enhance the capacity of faith communities to increase awareness of and demand for these and other HIV service innovations, particularly viral load testing. The T=T initiative will engage men and promote literacy about retention in HIV treatment, VL testing and viral suppression, with messaging similar to Eswantini's, "Protect yourself, protect your family, protect our community!" Through robust engagement of faith communities, the PEPFAR Faith Initiative will empower clients to know their viral load status and take charge of managing their disease through awareness and demand for improved treatment regimens, adherence support, and annual viral load testing.

### **Proposed activities include:**

- Develop and disseminate new messaging tailored to communities of faith about HIV testing, partner notification services, treatment adherence, and viral suppression through T=T ;
- Train faith leaders and build capacity in targeted demand creation for HIVST, partner notification, treatment initiation, and T=T, using existing faith networks and structures;
- Engage faith leaders to offer and improve disclosure counseling for couples, children, youth, and adolescents;
- Raise awareness about nearby services and coordinate referrals;



- Convene faith and traditional leaders to address challenges facing the national HIV response including stigma, misconceptions about HIV testing and treatment (including faith healing), and service quality and availability; and,
- Strengthen faith-based service providers (including CHAM facilities) to deliver effective HIV case finding and treatment services and improve coordination with FBO support services at community level.

Violence against children is a crisis in Malawi. The Faith Initiative will help prevent violence and provide services for children who experience sexual violence. The VACS found a high level of sexual violence against children and low disclosure rates. GBV increases vulnerability to HIV and other reproductive health and obstetric conditions, including unintended pregnancy and fistula, and may negatively affect an individual's ability to adhere to treatment and access care. Faith communities are uniquely placed to raise awareness of the scale and scope of violence and to catalyze normative change at grassroots level. PEPFAR Malawi fell short of its COP17 target for delivery of comprehensive GBV response services. Part of the challenge is changing perceptions and norms to enable victims to seek services and ensure timely access to PrEP and other supportive interventions, while other challenges include strengthening referral networks and ensuring effective, high-quality post-violence services are in place. The Faith Initiative will capacitate faith communities to implement evidence-based interventions to prevent violence and new approaches to targeted violence prevention tracking in communities. These activities will be coordinated with on-going COP-supported efforts to strengthen comprehensive violence response efforts through DREAMS and clinical service delivery partners.

**Proposed activities include:**

- Develop and disseminate, together with religious mother bodies and NAC, new messaging tailored to communities of faith about violence prevention and response;
- Train faith and traditional leaders to deliver evidence-based interventions to prevent sexual violence and HIV risk faced by 9-14 year olds. This effort will ensure the use of evidence-based curricula including SASA! Faith or Faith Matters with the goal of equipping faith and traditional leaders to disseminate messages related to GBV prevention and response. Training of faith leaders will also highlight the role that leaders play in these efforts and understand how to respond to a GBV case if someone discloses to them. Training efforts will also engage youth themselves through evidence-based programming (e.g., IMPOWER, Grassroots Soccer, etc.) to change norms and raise awareness of GBV;
- Scale up Families Matter! with parents in DREAMS catchment areas to complement existing efforts through faith-based organizations;
- Launch a new, targeted violence prevention tracking system whereby health facilities capture catchment areas where new cases of GBV are reported to engage faith and traditional leaders in those communities to intensify prevention efforts. This will focus on high-burden areas, including informal settlements;

- Ensure post-GBV services are accessible and of high quality in the corresponding districts. This includes conducting a GBV QA at these facilities to ensure high quality services that meet WHO standards; and,
- Strengthen faith-based service providers (including CHAM facilities) to deliver GBV response services.

PEPFAR Malawi will develop the above activities through engagement and consultation with key stakeholders.